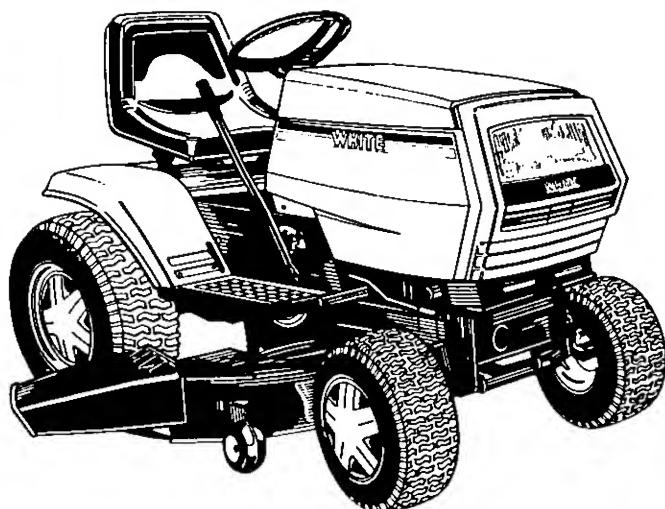


WHITE



OUTDOOR PRODUCTS OWNER'S GUIDE



**CruiseMatic
GT-180**

**Model Number
141-846H190**

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Dear Customer,

So often throughout the year we are all in a rush to meet our daily obligations.

However, we at White Outdoor Products are taking a quick moment out to say . . .

"Thank you for your business."

Sincerely,

WHITE OUTDOOR PRODUCTS



INSTRUCTIONS GIVEN WITH THIS SYMBOL ARE FOR PERSONAL SAFETY. BE SURE TO FOLLOW THEM.

TWO YEAR LIMITED WARRANTY

For two years from the date of original retail purchase, WHITE OUTDOOR PRODUCTS COMPANY will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by WHITE OUTDOOR PRODUCTS COMPANY.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or if the unit has not been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, Peerless components, motor, battery (except as noted below) or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

A battery which proves defective within ninety (90) days will be replaced without charge. After 90 days but within one hundred twenty (120) days from the date of purchase, WHITE OUTDOOR PRODUCTS COMPANY will replace the defective battery for a charge of 1/2 of the current retail price of the battery in effect at the date of return.

Warranty on units used commercially is limited to sixty (60) days.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of WHITE OUTDOOR PRODUCTS.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by WHITE OUTDOOR PRODUCTS.

This express limited warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability. The remedy of replacement is the sole and exclusive remedy for WHITE OUTDOOR PRODUCTS obligations arising from the sale of its products. In no case will WHITE OUTDOOR PRODUCTS COMPANY be liable for incidental or consequential loss or damage.

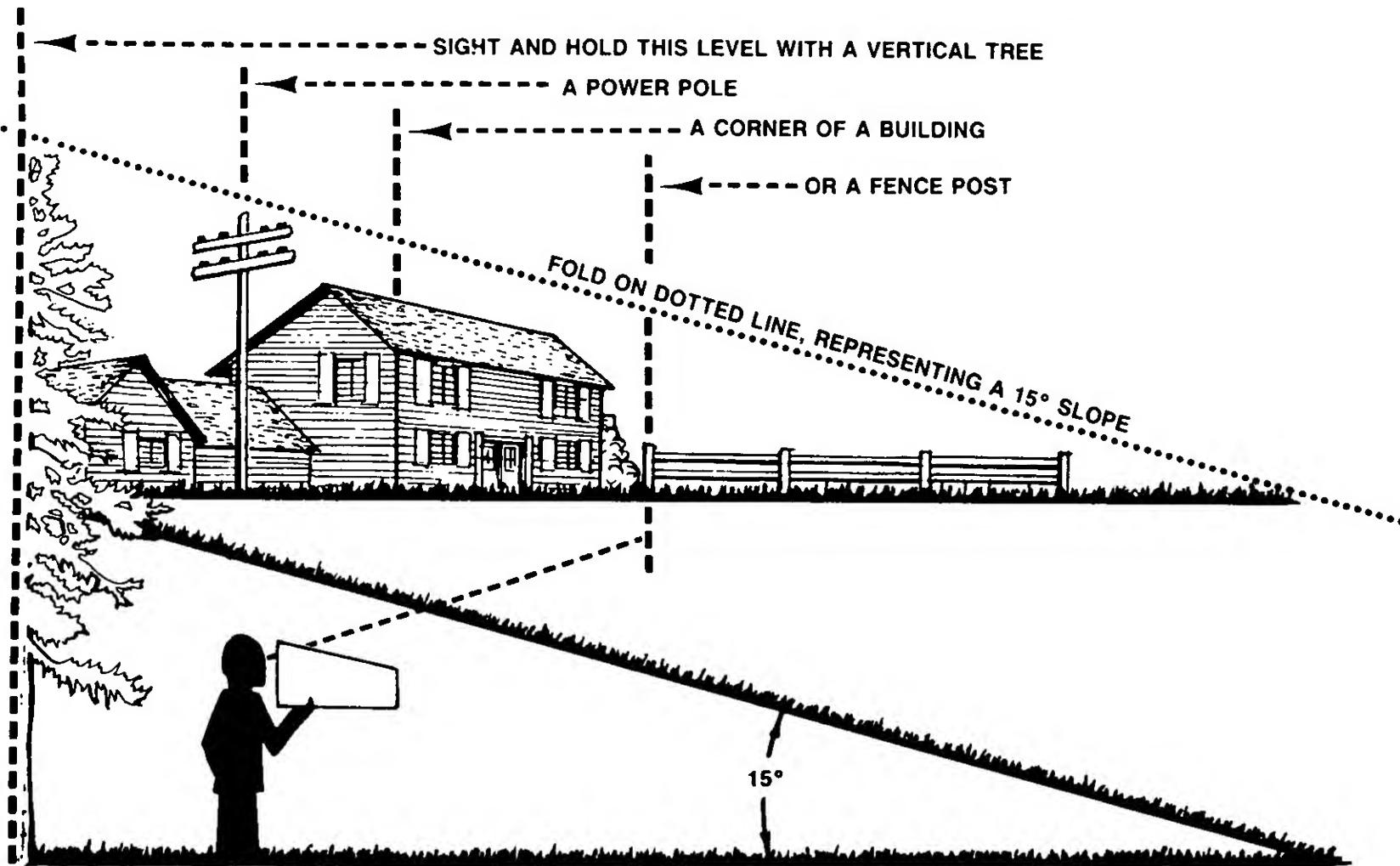
This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester muffler is available through your nearest engine authorized service dealer or through the service department of White Outdoor Products.

Cut Along Line

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately $2\frac{1}{2}$ feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

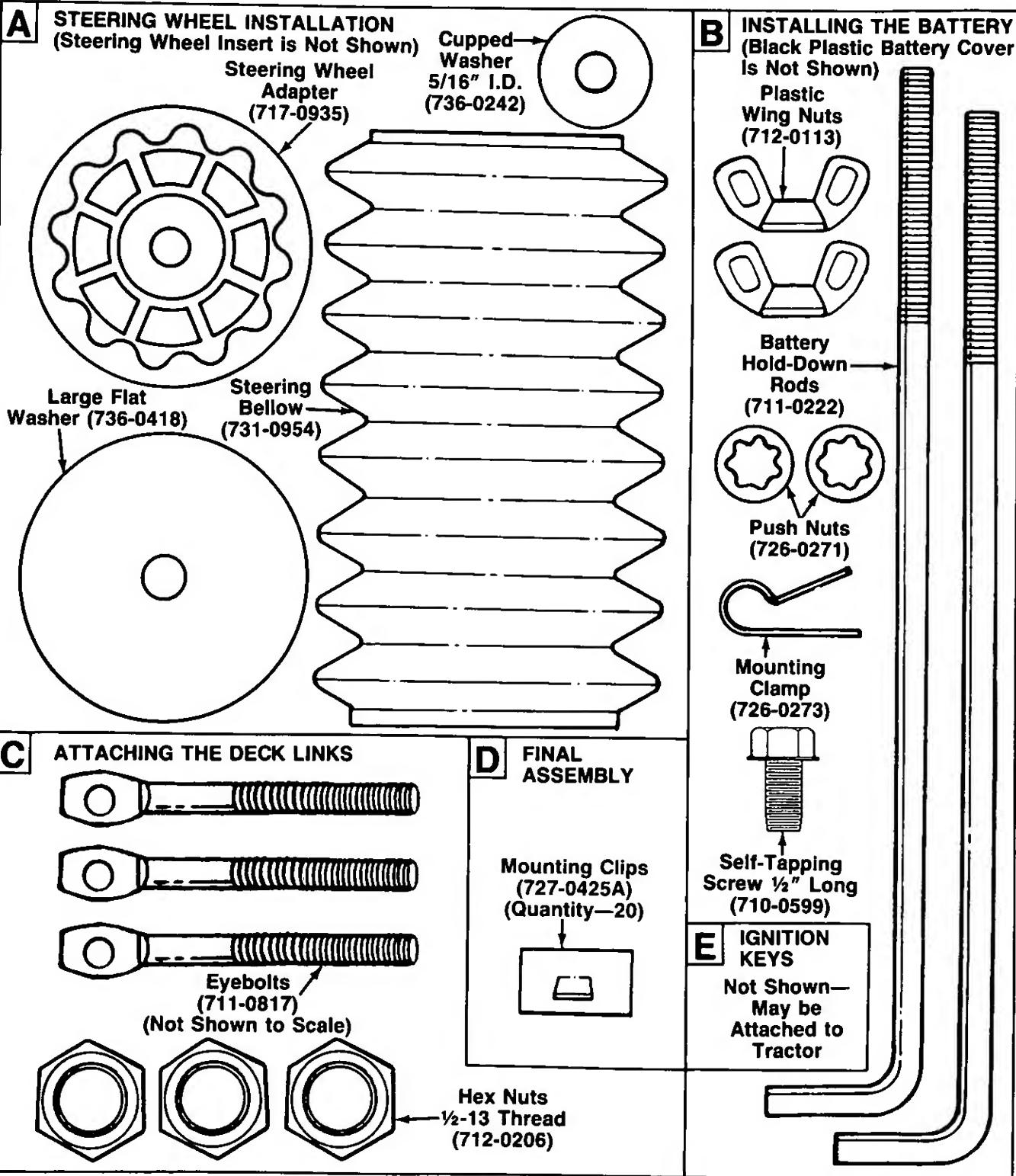
(Keep this sheet in a safe place for future reference.)

SLOPE GAUGE

CONTENTS OF HARDWARE PACK

Remove this sheet from your owner's manual and lay the hardware on the illustration for identification purposes. Refer to the separate deck manual for any information concerning the deck. After assembly, keep the Slope Gauge which is on the reverse side of this sheet for future use.

(Hardware pack may contain extra items which are not used on your unit.
Part numbers are shown in parentheses.)



0 1 2 3
INCHES

IMPORTANT

RULES FOR SAFE OPERATION

THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL— **HEED ITS WARNING.**

**DANGER:**

Your unit was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

1. READ THIS OWNER'S MANUAL carefully in its entirety before attempting to assemble or operate this unit. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. This unit is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.
3. Know the controls and how to stop the machine quickly.
4. Do not allow children under 14 years old to operate vehicle. Children 14 years and over should only operate unit under close parental supervision. Do not allow anyone to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
5. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
6. To prevent injury, do not carry passengers or give rides. Keep children, pets and bystanders out of the area while mowing. Only the operator should ride on the unit and only ride in the seat.
7. Check overhead clearance carefully before driving under power lines, guy wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
8. To maintain control of the unit and reduce the possibility of upset or collision, operate the tractor smoothly. Avoid erratic operation and excessive speed.
9. Thoroughly inspect the area to be mowed. Remove all stones, sticks, wire, bones and other foreign objects. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders, pets and the like.
10. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
11. Stop the blade(s) when crossing gravel drives, walks or roads.
12. Disengage all attachment clutches, thoroughly depress the brake pedal, and shift into neutral before attempting to start engine.
13. Before leaving the operator's position, disengage blade(s), place shift lever in neutral, engage parking brake, shut engine off and remove key.
14. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade(s) can cause injury.
15. Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
16. Before attempting to unclog the mower or discharge chute, stop the engine. The mower blade(s) may continue to rotate for a few seconds after the engine is shut off. Therefore, be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
17. Disengage power to attachment(s) when transporting or not in use.
18. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.
19. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face. Use extreme caution if it is necessary to drive the tractor up an incline or back the tractor down an incline because the front of the tractor could lift and rapidly flip over backward which could cause serious injury.
20. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Always keep the tractor in low gear when going down steep hills to take advantage of engine braking action. Choose a low enough gear so that you will not have to stop or shift while on the slope.
21. Stay alert for holes in terrain and other hidden hazards which may cause the unit to tip over.
22. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
 - D. Use counterweight(s) or wheel weights when suggested in owner's manual.
23. Watch out for traffic when crossing or near roadways.
24. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
25. Handle gasoline with care. It is highly flammable.
 - A. Extinguish cigarettes, cigars, pipes and all other sources of ignition.
 - B. Use approved gasoline container.
 - C. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Allow to cool at least 2 minutes before refilling. Wipe up spilled gasoline. Always use original type vented cap.
 - D. Open doors if engine is run in garage. Exhaust fumes are dangerous. Do not run engine indoors.
26. Never store the machine with fuel in the fuel tank inside a building where fumes may reach an open flame or spark, such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
27. To reduce fire hazard, keep engine and cutting deck free of grass, leaves or excessive grease or oil.
28. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in operator's manual. Do not operate this unit unless the chute deflector, guards, and safety interlock system are installed and functioning properly.
29. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
30. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
31. Do not change the engine governor settings or overspeed the engine.

RULES FOR SAFE OPERATION (CONTINUED)

32. When using the vehicle with mower, proceed as follows:
 - A. Mow only in daylight or in good artificial light.
 - B. Never make a cutting height adjustment while engine is running if operator must dismount to do so.
 - C. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
 - D. Check blade mounting bolts for proper tightness at frequent intervals. Also, check blades for wear or damage (e.g. bent, cracked). Replace with blade which meets original equipment specifications.
33. Check grass catcher bags frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.
34. Look behind to make sure the area is clear before placing the transmission in reverse and continue looking behind while backing up. Disengage blades before shifting into reverse and backing up.
35. This unit should not be driven up a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually to load properly.
36. Check brake operation frequently. Adjust and service according to brake adjustment instructions in this manual.
37. Muffler, engine, and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.

ASSEMBLY INSTRUCTIONS

IMPORTANT: This unit is shipped WITHOUT GASOLINE or OIL; however, some oil may be present from the factory. Do not overfill. After assembly, service engine with gasoline and oil as instructed in the separate engine manual.

NOTE: Reference to right or left hand side of the unit is observed from the driver's seat, facing forward. Refer to the separate deck manual for all information regarding the deck.

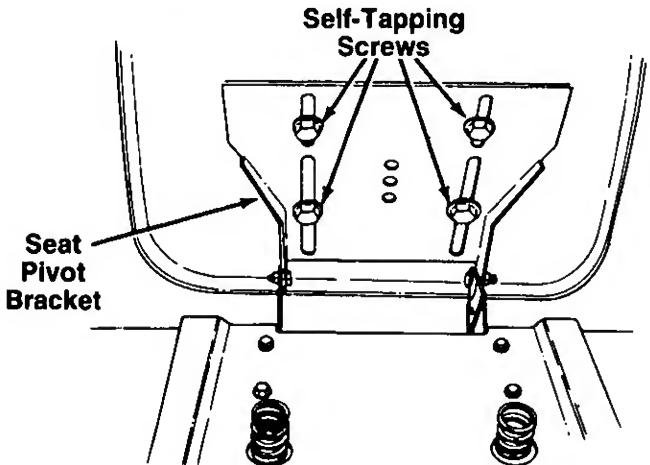


FIGURE 1.



WARNING

- A. Battery acid must be handled with great care as contact with it can burn and blister the skin. It is also advisable to wear protective clothing (goggles, rubber gloves and apron) when working with it.*
- B. Should battery acid accidentally splatter into the eyes or onto the face, rinse the affected area immediately with clean, cold water. If there is any further discomfort, seek prompt medical attention.
- C. If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.

UNPACKING

1. Remove the carton from the tractor as follows. Open the top flaps and remove all carton inserts. Carefully cut on dotted line all the way around the carton. Lift the carton off the tractor. Remove the deck from beneath the tractor. Roll the tractor off the skid. Make certain all parts and literature have been removed from the carton before the carton is discarded.
2. Remove page four from this manual and lay the contents of the hardware pack according to the illustration for identification.

SEAT ASSEMBLY

Remove the four hex self-tapping screws from the bottom of the seat. Place the seat in position against the seat pivot bracket, lining up the slotted holes in the pivot bracket with the holes in the seat. Select desired position for the seat, and secure with hex self-tapping screws. See figure 1.

BATTERY INFORMATION

- D. Since battery acid is corrosive, do not pour it into any sink or drain. Before discarding empty electrolyte containers, rinse them with a neutralizing solution.
- E. NEVER connect or disconnect charger clips to battery while charger is turned on as it can cause sparks.
- F. Keep all lighted materials (cigarettes, matches, lighters) away from the battery as the hydrogen gas generated during charging can be combustible.
- G. As a further precaution, only charge the battery in a well-ventilated area.

***Always shield eyes, protect skin and clothing when working near batteries.**

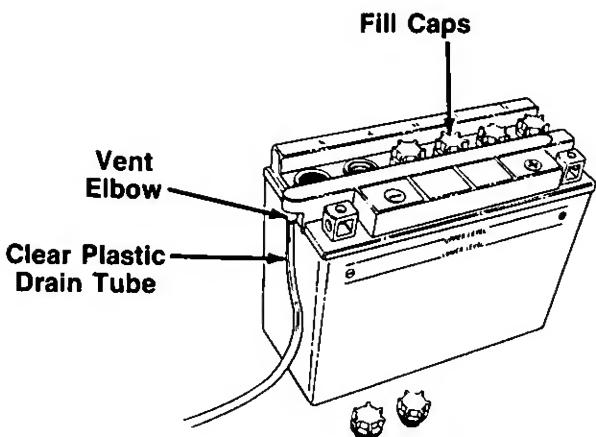


FIGURE 2.

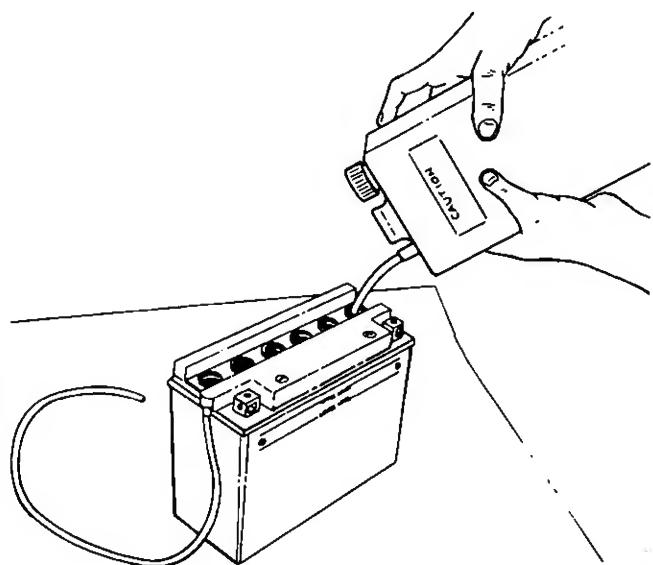


FIGURE 3.



DANGER

Battery contains sulfuric acid. Refer to warning on page 6. Antidote: EXTERNAL—Flush with water. INTERNAL—Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Seek prompt medical attention. EYES: Flush with cool water for at least 15 minutes, then seek immediate medical attention.

Since batteries produce explosive gases, keep all lighted materials (cigarettes, lighters, matches, etc.) away. Be sure to charge battery only in well-ventilated areas.

**KEEP BATTERIES
OUT OF THE REACH OF CHILDREN!**

ACTIVATING THE BATTERY

Do not activate battery (fill with battery acid) until battery is actually placed in service. Be certain to read previous warnings before activating the battery.

1. Open the battery pack. Be careful not to puncture the box. It contains the battery with a long plastic tube attached, battery fluid (acid) in a plastic container, one short plastic tube and one hardware pack (two hex bolts and nuts).
2. Place the battery on a table or workbench. Make certain the long plastic drain tube is in place on the vent elbow.
3. Remove the six fill caps from the top of the battery. See figure 2.
4. Place the battery fluid container on the table or workbench. Carefully cut off tip of the spout and attach the short plastic tube provided. Do not squeeze the container when cutting tip.
5. Fill each battery cell slowly and carefully to the UPPER LEVEL line marked on battery. See figure 3. Use caution as the acid level will rise rapidly after the bottom of the cell is filled.
6. Allow battery to stand for 30 minutes with the fill caps removed, while the plates absorb acid.
7. If acid level has fallen after the 30 minute standing period, refill each cell with battery acid to the UPPER LEVEL line on battery. Replace the fill caps.
8. Before discarding the empty container, neutralize any residue with baking soda and rinse container with water. Puncture container several times before discarding.
9. Charge the battery after the 30 minute standing period. **SLOW CHARGE THE BATTERY (DO NOT FAST CHARGE)** at a maximum bench rate of 2 amperes until the specific gravity reading is 1.265. Charge for a minimum of 3 hours and a maximum of 5 hours.

NOTE: This engine is equipped with an alternator. The current for the battery charger alternator is unregulated. During normal operation, it is only necessary to charge the battery:

1. When it is activated for the first time.
2. Before winter storage.
3. Before using the lawn tractor after winter storage.

NOTE: After battery has been charged, add only distilled water. Do not add acid.

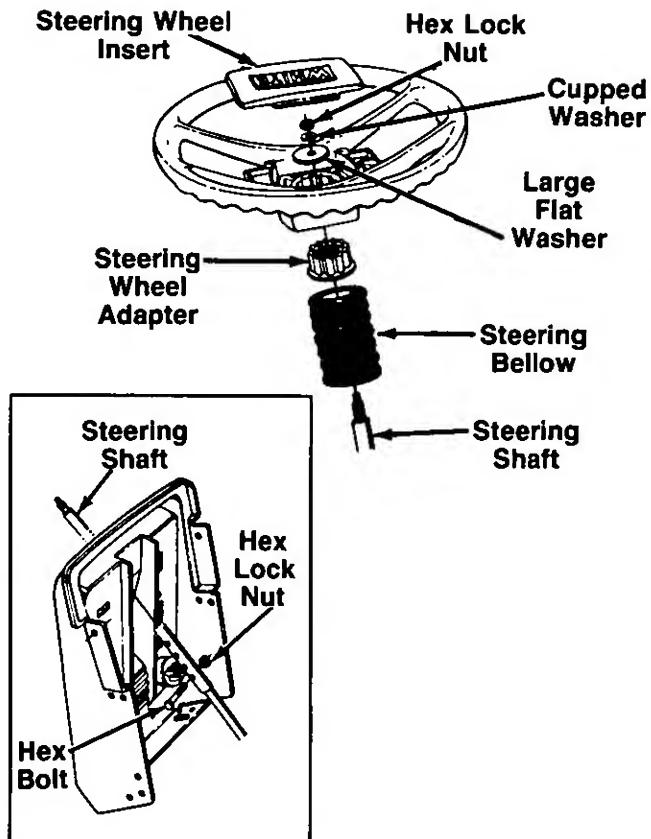


FIGURE 4.

STEERING WHEEL INSTALLATION (Hardware A)

1. There are four height positions for the steering wheel. For shipping purposes, the steering shaft is assembled in the lowest position. Lift the hood of the tractor. Remove the hex bolt and hex lock nut on the steering shaft. Raise the shaft to desired position and secure with hex bolt and hex lock nut. See figure 4, inset.
2. Position the front wheels of the tractor so they are pointing straight forward.
3. Remove the hex lock nut which is on top of the steering shaft.
4. Place the steering bellow over the steering shaft. Place steering wheel adapter over end of steering shaft as shown in figure 4.
5. Place steering wheel over the steering shaft, positioning the steering wheel so the spokes on the wheel are sideways.
6. Place large flat washer over steering shaft, then cupped washer (cupped side down). Secure with hex lock nut removed in step 3. See figure 4.
7. Place the steering wheel insert over the center of the steering wheel so the logo can be read from the operator's position, and press on by hand.

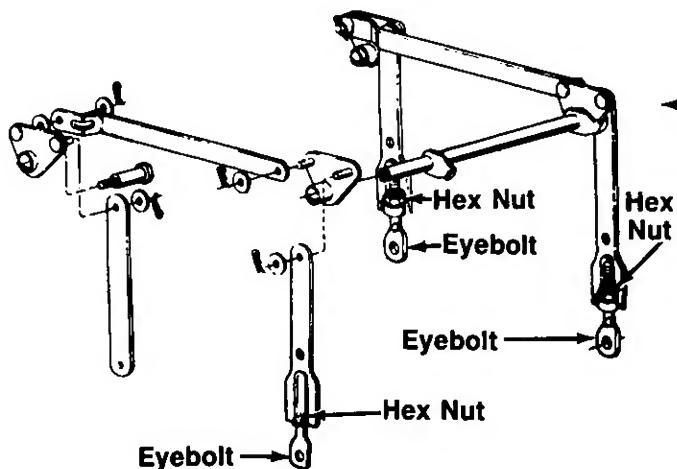
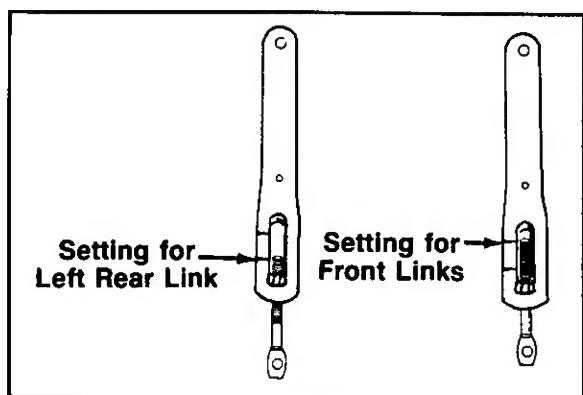


FIGURE 5.

ATTACHING THE DECK LINKS (Hardware B)

The three adjustable deck links have been shipped unassembled. Attach as follows.

1. Start $1\frac{1}{2}$ " hex nuts on eyebolts provided. Insert the hex nuts and eyebolts into the adjustable lift links as shown in figure 5.
2. Thread eyebolts into the lift links and hex nuts. The left rear link should be adjusted so the eyebolt is to the lower mark as shown. The two front links should be adjusted to the higher mark.

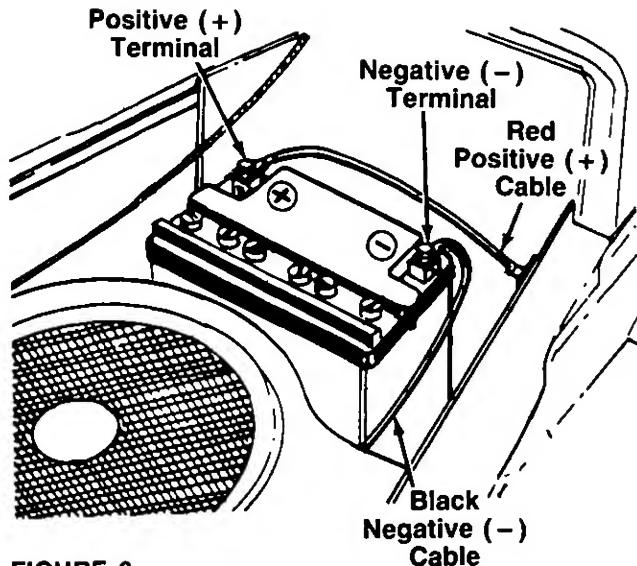


FIGURE 6.

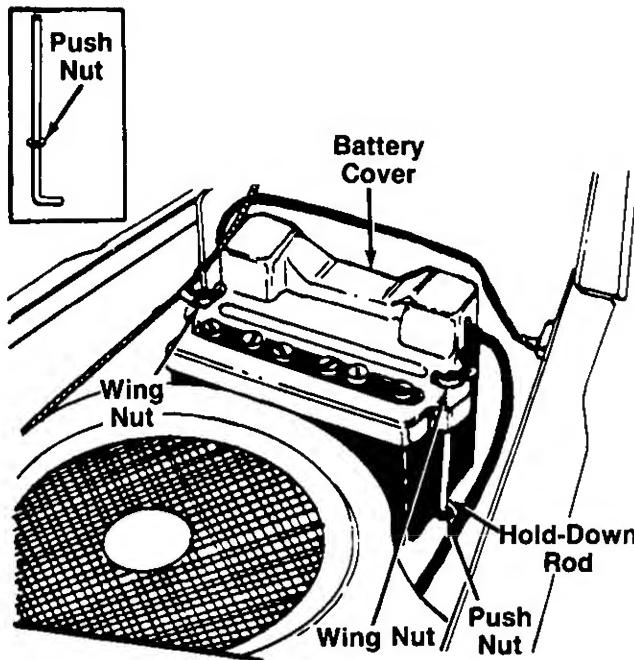


FIGURE 7.

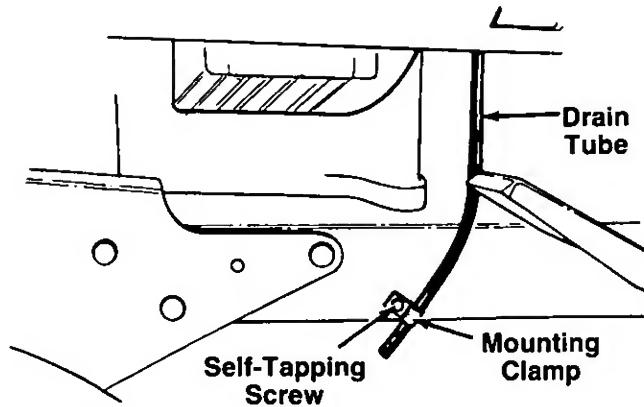


FIGURE 8.

INSTALLING THE BATTERY (Hardware C)

1. Place the battery on the battery plate with the terminals toward the rear of the tractor.
2. Attach the positive cable (heavy red wire) to the positive battery terminal (+) with hex bolt and hex nut provided with battery. See figure 6.

NOTE: The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (-).

3. Attach the negative cable (heavy black wire) to the negative battery terminal (-) with the other hex bolt and hex nut.
4. Attach one push nut to each battery hold-down rod as follows. Thread the push nut, flat side down, over the threads on hold-down rod, then slide it further down the rod. See figure 7, inset.
5. Hook one hold-down rod into the hole in battery plate beside the battery as shown in figure 7. Slide the push nut down the rod, against the battery plate. Place the black plastic battery cover in position over the hold-down rod. Secure with wing nut.
6. Attach other hold-down rod to the other side of battery cover in the same manner.

7. Route the battery drain tube over to the left side of the tractor. Slip the end of the drain tube into the mounting clamp provided in hardware pack. Secure the mounting clamp to the tractor frame using the self-tapping screw as shown in figure 8.

NOTE: The vented battery allows any gases or liquid from the battery to be drained onto the ground.

8. Trim end of drain tube if more than 1 inch extends below the frame.

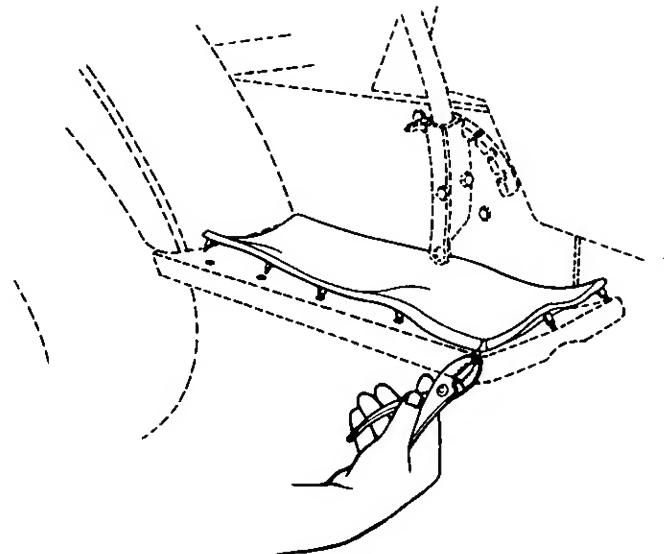


FIGURE 9.

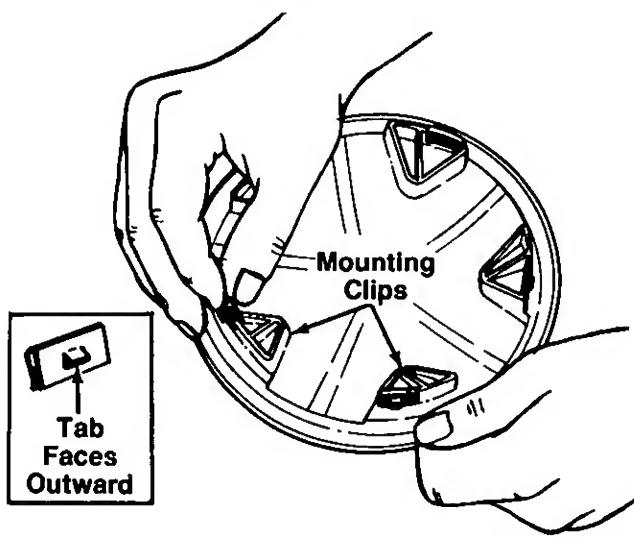


FIGURE 10.

FINAL ASSEMBLY

1. If not already assembled, attach foot pads as follows. Position one foot pad on top of the running board on the tractor, lining up the studs on the bottom of pad with the holes in the running board. Pull the studs through the holes in the running board using a pair of pliers. Repeat on other side of tractor. See figure 9.

2. Attach the four hub caps as follows.
 - a. Slide five mounting clips on each hub cap as shown in figure 10, with the tabs on the mounting clips facing outward.
 - b. Line up hub caps with wheel rims. Push hub caps on by hand.
3. Make certain all nuts and bolts are tightened securely.

TIRE PRESSURE

The tires on your unit may be over-inflated for shipping purposes. Reduce the tire pressure before operating the unit. Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure).



WARNING: Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

ATTACHING THE CUTTING DECK

Attach the cutting deck as instructed in the separate deck manual packed with your unit.

CONTROLS

IGNITION SWITCH

The ignition switch is located on the dashboard. Turn the key to the START position to start the engine. When the engine is running, leave the key in the ON position. To stop the engine, turn the key to the OFF position. See figure 11.



WARNING: Remove the key from the tractor when the tractor is not in use to prevent accidental starting.

THROTTLE CONTROL

The throttle control is located on the left side of the

dashboard and is used to regulate the engine speed. See figure 11. The engine should be operated from $\frac{3}{4}$ to full throttle (FAST) when operating any equipment that uses the tractor engine as a source of power such as the mowing deck, snow thrower or rotary tiller.

CHOKE CONTROL

The choke control is located on the right side of the dashboard and is operated manually. Details for the choke operation are covered in the separate engine manual packed with your unit. See figure 11.

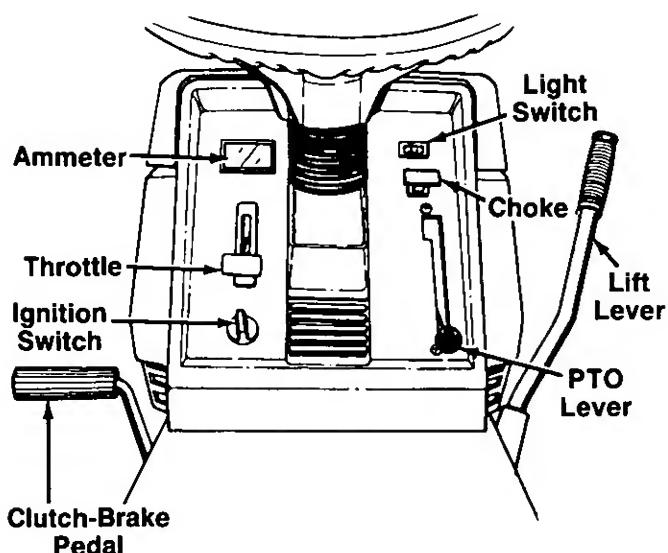


FIGURE 11.

LIGHT SWITCH

The head lamps are operated by pushing the light switch located on the dashboard. The head lamps will only operate when the engine is running. See figure 11.

AMMETER

The ammeter registers the rate of battery charge or discharge. The ammeter will register on the discharging side when starting the engine. It should register on the opposite side (charging) when the engine is running in the fast position until the battery is completely charged. With a fully charged battery or with the engine idling, the ammeter will not show a charge. See figure 11.

CLUTCH-BRAKE PEDAL

The clutch-brake pedal is located on the left side of the tractor. See figure 11. Depressing the clutch-brake pedal partway disengages the clutch. Pressing the pedal all the way down disengages the clutch and engages the disc brake.

NOTE: The clutch-brake pedal must be depressed to start the engine.

SHIFT LEVER

The shift lever is located in the center of the console and has four positions, HIGH, LOW, NEUTRAL and REVERSE. See figure 12. The clutch-brake pedal must be depressed and the lawn tractor must not be moving when shifting gears. Do not force the shift lever. Release the clutch-brake pedal slightly to line up the shifting collar in the transmission. Then try to shift gears.

PARKING BRAKE

To set the parking brake, depress the clutch-brake pedal and pull up the parking brake knob. It will stay in the raised position. To release the parking brake, depress and release the clutch-brake pedal. See figure 12.

NOTE: The parking brake must be set if the operator leaves the seat with the engine running.

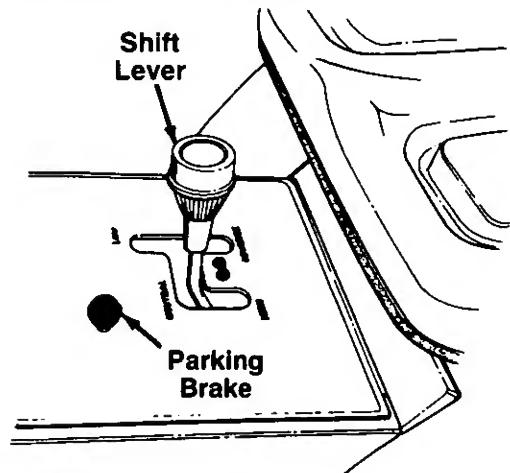


FIGURE 12.

SPEED CONTROL LEVER

The speed control lever is located on the left fender. It allows you to regulate the ground speed of the lawn tractor. See figure 13. To select the ground speed, depress clutch pedal. Push speed control lever outward and move backward to slow lawn tractor, move forward to increase speed. When desired speed has been obtained, release lever in that position. Whenever clutch is engaged, unit will automatically go to the pre-set speed.

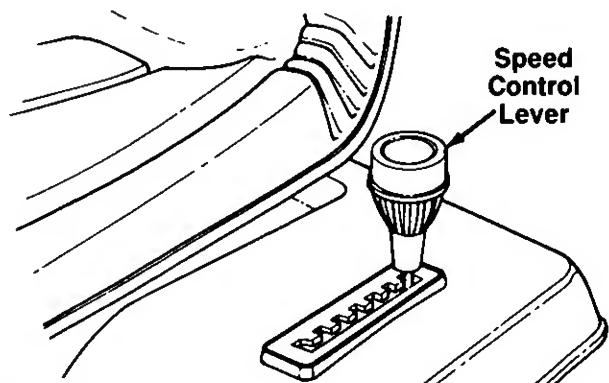


FIGURE 13.

LIFT LEVER

The five position lift lever is used to change the operating position of the attachments. To operate, pull the lever towards you. To release, move the lever to the right and then forward. See figure 11.

POWER TAKE-OFF (PTO) LEVER

The PTO lever is located on the right side of the dashboard. The PTO lever is used to engage and disengage the power to the attachments. To engage the PTO, lift the lever slowly and lock it into the notch. See figure 11.

NOTE: The PTO lever must be in the disengaged position (down) when starting the engine, when shifting into reverse and if the operator leaves the seat.

OPERATION

CAUTION

- BE AWARE OF OTHERS IN THE AREA - USE THE HORN TO ALERT OTHERS.
- KEEP CHILDREN AND OTHERS AWAY FROM CONTROLS.
- KEEP SMALL CHILDREN OUT OF SHIELDS AND SHUTTERS.
- PULL OUT THE CHOKES THAT ARE TO BE OPERATED BY BEING SLOW.
- DO NOT OPERATE THE UNIT IN THE DUST, DIRT, DIRT, DUST AND DIRT.
- DO NOT BACK UP THE UNIT IF YOU ARE BACK UP.
- DO NOT OPERATE THE UNIT IF THERE IS COULD STOP OR STOP.
- THE UNIT STOPS GRADUALLY, STOP BEFORE STAND BACK SLOWLY.
- BE SURE BRAKE SHUTTER IS STOPPED BEFORE PULL GUARDS OR FEET CLEAR BARRIERS.
- RELEASE THE PARKING BRAKE AND ENGAGE THE BRAKE'S PLACE THE SHIFT LEVER IN NEUTRAL, ENGAGE THE PARKING BRAKE, SHUT ENGINE OFF AND REMOVE THE KEY.

GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your tractor. Read instructions carefully.

The gasoline tank is located under the seat. The filler neck is behind the seat. Do not overfill.

NOTE: Your tractor is shipped without oil; however, some oil may be present from the factory. Do not overfill.



WARNING: Never fill fuel tank indoors, with engine running or while engine is hot.

STARTING THE ENGINE

IMPORTANT: This unit is equipped with a **safety interlock system** for your protection. The purpose of the safety interlock system is to prevent the engine from cranking or starting unless the clutch-brake pedal is depressed and the PTO lever is in the disengaged position. In addition, the PTO lever must be in the disengaged position when the unit is put into reverse or the engine will shut off. If the operator leaves the seat with the PTO lever engaged and/or without setting the parking brake, the engine will shut off.



WARNING: Do not operate the tractor if the interlock system is malfunctioning because it is a safety device, designed for protection.

1. Place the PTO lever in the disengaged (down) position.
2. Depress the clutch-brake pedal and set the parking brake.
3. Place the shift lever in the NEUTRAL position.
4. Set the throttle control in the FAST position.

5. Pull out the choke control (a warm engine may not require choking).
6. Turn the ignition key to the right to the START position. After the engine starts, release the key. It will return to the ON position.
7. Slowly push in the choke as the engine warms up.

STOPPING THE ENGINE

Turn the ignition key to the left to the OFF position. Remove the key to prevent accidental starting.

IMPORTANT: If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the unit for any damage, and repair the damage before restarting and operating the mower.

NOTE: If any problems are encountered, refer to the Trouble Shooting Guide on page 18.

OPERATING THE TRACTOR

1. Start the engine as instructed previously.
2. Move throttle control to 3/4 or full throttle to prevent strain on the engine and to operate attachments.
3. Place the shift lever in one of the two forward positions (LOW or HIGH), or in REVERSE. Place the speed control lever in desired position. Use first speed position when operating the tractor for the first time.



WARNING: Look to the rear before backing up.

4. Release the parking brake by depressing the clutch-brake pedal. Release clutch-brake pedal slowly to put unit into motion.
5. The tractor is brought to a stop by depressing the clutch-brake pedal.
6. The cutting blades (or other attachment) may be engaged while the tractor is moving or standing still. DO NOT engage the cutting blades abruptly as the sudden belt tension on the pulley may cause the engine to stall.



WARNING: Keep feet and hands away from the discharge opening, the blades or any part of the deck.

NOTE: When operating the unit initially, there will be little difference between the highest two speeds until after the belts have seated themselves into the pulleys during the break-in period. Be certain to change oil in the crankcase after the first 5 hours of operation.

Be sure that the lawn is clear of stones, sticks, wire, or other objects which could damage tractor or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.



WARNING: Before leaving the operator's position for any reason, disengage the blades, place the shift lever in neutral, engage the parking brake, shut engine off and remove the key.

When stopping the unit to empty a grass bag, etc., follow the instructions above. This procedure will also eliminate "browning" the grass, which is caused by hot exhaust gases from a running engine.

If unit stalls with speed control in sixth or seventh speed, or if unit will not operate with speed control lever in first or second speed position, proceed as follows.

1. Place shift lever in NEUTRAL.
2. Restart engine.
3. Place speed control lever in seventh speed position.
4. Release clutch-brake pedal fully.
5. Depress clutch-brake pedal.
6. Place speed control lever in desired position.
7. Place shift lever in one of the forward positions (HIGH or LOW) or REVERSE, and follow normal operating procedures.

GRASS COLLECTOR AVAILABLE

GRASS COLLECTOR Model 190-083 is available as optional equipment.



WARNING: The mower should not be operated without the entire grass catcher or chute deflector in place.

NOTE: Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag.

ADJUSTMENTS



WARNING: Disconnect the spark plug wire and ground against the engine before performing any adjustments, repairs or maintenance.

SEAT ADJUSTMENT

To adjust the position of the seat, loosen the four self-tapping screws on the bottom of the seat. See figure 1. Slide the seat forward or backward as desired. Retighten the self-tapping screws.

SPEED CONTROL ADJUSTMENT (See figure 14)

NOTE: When operating the unit initially or after replacing the belts, there will be little difference between the sixth and seventh speeds until after the belts have gone through a break-in period and have seated themselves into the pulleys.

If speed control adjustment is needed, adjust the speed control links as follows. (A 1/2" shim or suitable spacer is required.)

1. Start the engine.
2. Place the shift lever in NEUTRAL position.
3. Place the speed control lever in seventh speed position.
4. Release the clutch-brake pedal completely, then slowly depress the pedal all the way (to park position). Hold the pedal in this position.
5. Turn the engine off.
6. After engine stops completely, release the clutch-brake pedal.
7. Disconnect the rear speed control link from the variable speed torque bracket by removing the cotter pin and flat washer.
8. Place the speed control lever in the first position.
9. Disconnect the front speed control link from the variable speed torque bracket by removing the cotter pin and flat washer.
10. Place a 1/2" shim or other suitable object under the point on the bracket on the clutch-brake pedal as shown.
11. Thread the front speed control link in or out of the ferrule until the hole in the link lines up with the pin on the variable speed torque bracket. Secure with the flat washer and cotter pin removed in step 9.
12. Push the rear speed control link backward using light pressure, and hold it in this position as you thread it into or out of the ferrule until the hole in the link lines up with the pin on the variable speed torque bracket. Then turn the link clockwise two more times (making it longer).
13. Move the speed selector toward the right so the hole in the rear speed control link fits over the pin on the variable speed torque bracket. Secure with the flat washer and cotter pin removed in step 7.
14. Remove the 1/2" shim from beneath the bracket on the clutch-brake pedal.

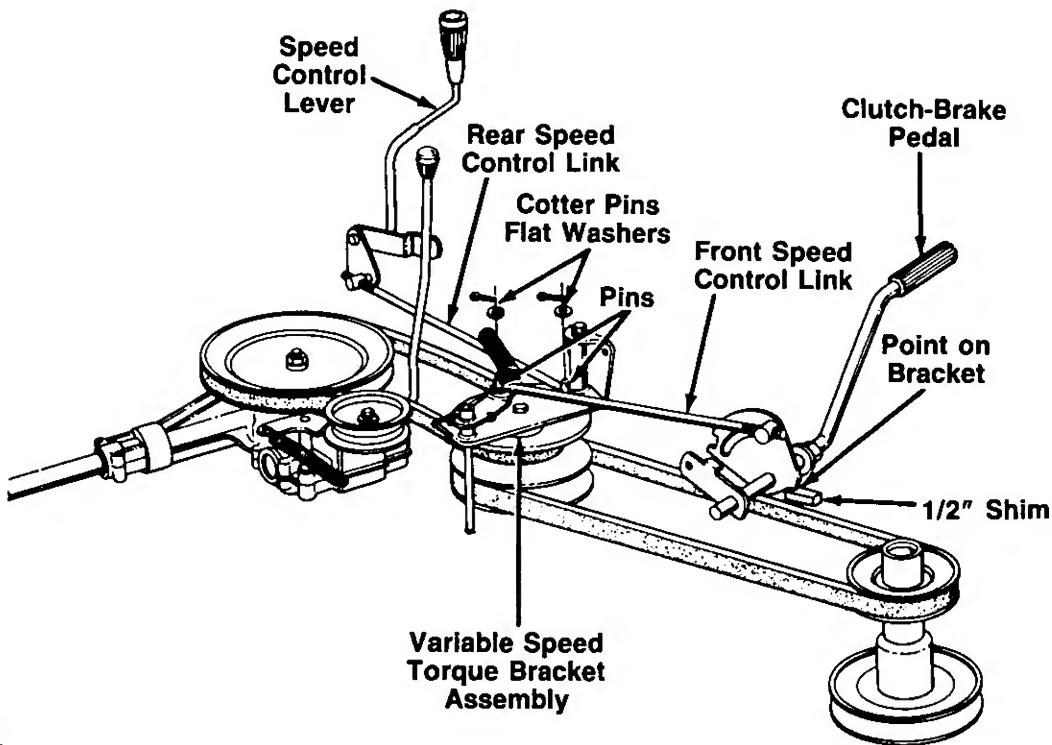


FIGURE 14.

LEVELING THE DECK

1. Check tire pressure in all four tires. Recommended pressure is approximately 12 p.s.i.
2. Make certain all deck wheels are mounted in same relative location.
3. On a level surface, engage the PTO and lower the deck until it reaches the ground.

All four deck wheels should reach the ground at the same time. If they do not, adjust the deck links as necessary.

NOTE: When adjusting the deck links, disengage the PTO. Remove the hairpin clip and washer from the weld bolt. Thread eyebolt up or down the link as necessary, and reassemble.

4. Raise the deck $\frac{1}{2}$ " to 1" above the ground.

Check to be certain the distance from the bottom edge of the deck to the ground is the same on both sides of the deck. If it is not, adjust the links on the left side of the unit.

Check to be certain the front of the deck is $\frac{1}{4}$ " to $\frac{3}{8}$ " lower than the rear of the deck. If it is not, adjust the two front links to obtain this distance.

STEERING WHEEL ADJUSTMENT

There are four height positions for the steering wheel. To adjust the height of the steering wheel, remove the hex bolt and hex lock nut on the steering shaft. Place the steering wheel in the position desired and secure with hex bolt and hex lock nut. Refer to figure 4.

NOTE: When raising the height of the steering wheel, stretch the steering bellow to cover the steering shaft.

The steering shaft may also be adjusted if there is too much play between the steering gear and segment. To adjust, loosen the hex bolt and nut on the front of the bearing retainer bracket. See figure 15. Pry the bearing retainer bracket toward the right until the steering gear engages solidly into the teeth of the steering segment. Retighten the hex bolt and nut.

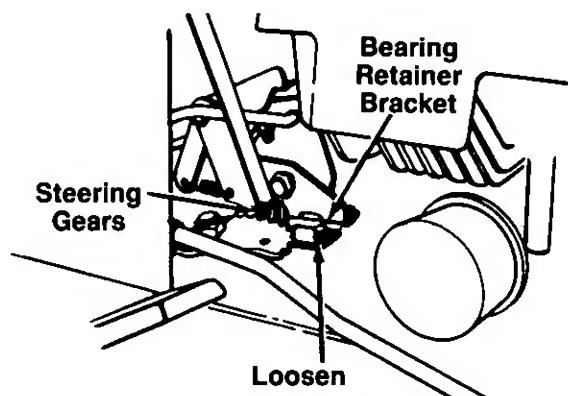


FIGURE 15.

BRAKE ADJUSTMENT (See figure 16)

The brake is located on the left side of the transaxle. During normal operation of this machine, the brakes are subject to wear and will require periodic examination and adjustment.



WARNING: Do not adjust the brake while the engine is running. Be sure to block the wheels of the tractor before making the brake adjustment.

To adjust the brake, remove the cotter pin. Adjust the castle nut so the brake starts to engage when the brake lever is 1/4" to 5/16" away from the axle housing.

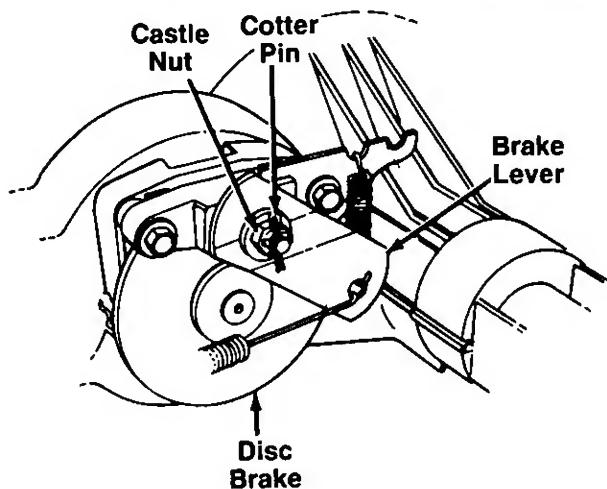


FIGURE 16.

CARBURETOR ADJUSTMENTS



WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load. Refer to separate engine manual for carburetor adjustment information.

NOTE: A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

LUBRICATION



WARNING: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn tractor.

STEERING GEARS

Lubricate teeth of steering gears with automotive multi-purpose grease after every 25 hours of operation or once a season. Refer to figure 15.

STEERING SHAFT

Lubricate steering shaft at least once a season with light oil.

TRANSAXLE

The transaxle is lubricated and sealed at the factory and does not require checking. If disassembled for any reason, lubricate with 32 oz. of Shell Darina grease #0, part number 737-0148.

LINKAGE

Once a season lubricate all the pivot points on the clutch, brake and lift linkage with SAE 30 engine oil.

WHEELS

The front wheels are provided with grease fittings. The rear wheels must be removed from the axle for lubrication. Lubricate at least once a season with automotive multi-purpose grease.

PIVOT POINTS

Lubricate all pivot points with light oil at least once a season.

BALL JOINTS

The ball joints and drag link ends are permanently lubricated.

MAINTENANCE



WARNING: Disconnect the spark plug wire and ground against the engine before performing any adjustments, repairs or maintenance.

TROUBLE SHOOTING

Refer to the chart on pages 18 and 19 for trouble shooting engine problems.

CRANKCASE OIL

Check the oil level in the crankcase before each use of the machine and after every two hours of operation. Oil level should be maintained as instructed in the separate engine manual.

After the first two hours of operating a new engine, drain the oil from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil after every 25 hours of operation. Refer to the engine manual.

FUEL FILTER

Your unit is equipped with a replaceable in-line fuel filter. Replace filter whenever contamination or discoloration is noticed. Order replacement filter through your authorized engine service dealer.

WHEEL ADJUSTMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) require no adjustment. Automotive steering principles have been used to determine the caster and camber on the tractor. The front wheels should toe-in 1/8 inch.

To adjust the toe-in, follow these steps.

1. Remove the hex nut and lock washer, and drop the end of the tie rod from the axle bracket. See figure 17.
2. Loosen the hex jam nut on tie rod.
3. Adjust the tie rod assembly for correct toe-in.

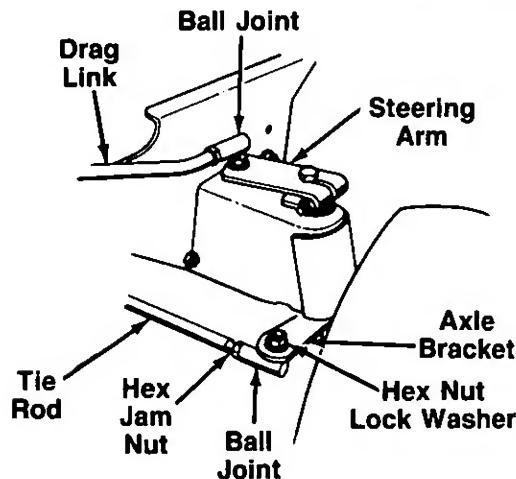


FIGURE 17.

Dimension "B" should be approximately $1/8$ " less than Dimension "A." See figure 18. To increase Dimension "B," screw tie rod into tie rod end. To decrease Dimension "B," unscrew tie rod from tie rod end. Reassemble tie rod. Check dimensions. Readjust if necessary.

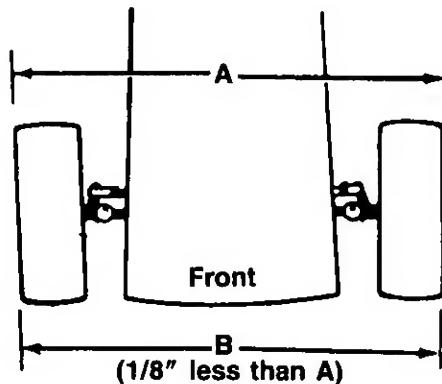


FIGURE 18.

DRAG LINK

If the drag link or ball joints are changed, the new assembly must be adjusted to the exact same length as the original. If adjusted incorrectly, it will allow the tractor to turn sharper one direction than the other.

To take off the drag link, remove the nuts and lock washers holding the ball joint to the steering gear and right front axle bracket. See figure 17.

ENGINE

Refer to separate engine manual for all engine maintenance procedures.

MAINTENANCE OF BATTERY

1. Check electrolyte level periodically (at least every two weeks). Keep the level to the split rings. Use only distilled water or a good quality drinking water. Never add acid or any other chemicals to the battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, the battery should be recharged. Maximum charge rate 5 AMPS.
3. Coat the terminals and exposed wire with a thin coat of grease or petroleum jelly for longer service and protection against corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.
5. Avoid tipping the battery. Even a "sealed" battery will leak electrolyte when tipped.

STORAGE OF THE BATTERY

1. Charge battery using normal methods. NEVER store discharged battery as it will not recover.
2. When storing battery for extended periods, disconnect battery cables. Removing battery from unit is recommended.
3. Store in cold, dry place.
4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service, or every two months, whichever occurs first.

COMMON CAUSES FOR BATTERY FAILURE

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

NOTE: These failures do not constitute warranty.

BATTERY REMOVAL OR INSTALLATION



WARNING: When removing the battery, follow this order of disassembly to prevent your wrench from shorting against the frame.

1. Remove the Negative cable.
2. Remove the Positive cable.

To install a battery:

1. Attach the Positive cable.
2. Attach the Negative cable.

JUMP STARTING

1. Attach the first jumper cable from the Positive terminal of the good battery to the Positive terminal of the dead battery.

2. Attach the second jumper cable from the Negative terminal of the good battery to the FRAME OF THE UNIT WITH THE DEAD BATTERY.

WARNING: Failure to use this starting procedure could cause sparking, and the gases in either battery could explode.

TIRES

Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure). Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

When installing a tire to the rim, be certain rim is clean and free of rust. Lubricate both the tire and rim generously. Never inflate to over 30 p.s.i. to seat beads.



WARNING: Excessive pressure (over 30 p.s.i.) when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

BELT REPLACEMENT

Front Drive Belt

1. Depress the clutch pedal and set parking brake.
2. Remove the deck from the tractor.
3. Raise and block the front wheels of the tractor so you can work under it.
4. Remove the four self-tapping screws which hold the belt keeper assembly to the frame at the engine pulley. Push the belt keeper assembly forward, out of the way. See figure 19.

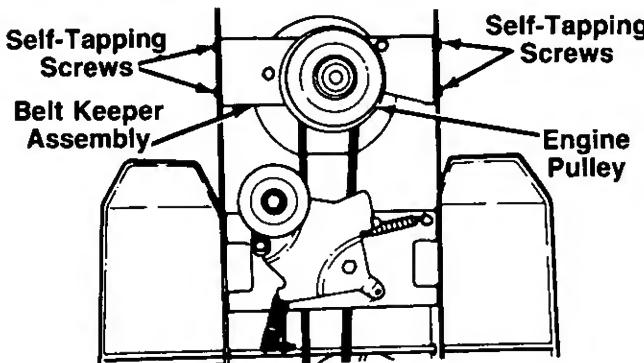


FIGURE 19.

5. Remove the two pins which act as belt keepers by the variable speed pulley. See figure 20.
6. Roll the belt off the variable speed pulley, then remove from the engine pulley.
7. Reassemble the new belt, following instructions in reverse order.

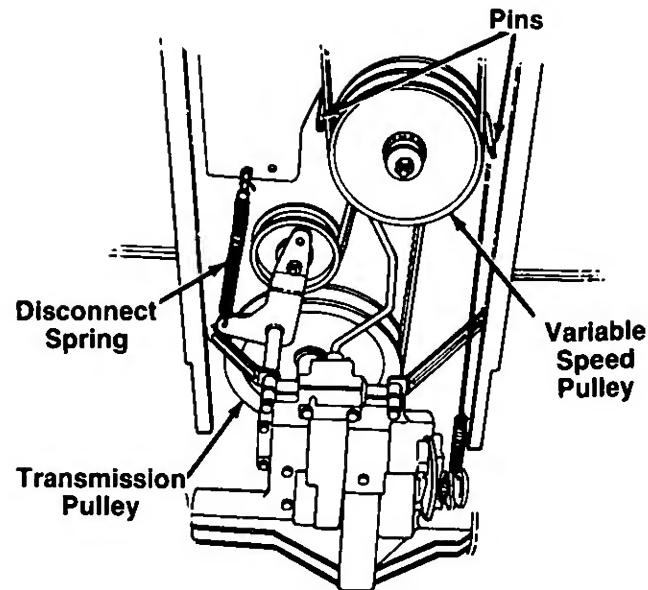


FIGURE 20.

Rear Drive Belt

1. First remove the front drive belt as instructed in the previous section.
2. Disconnect the spring which secures the idler pulley to the frame.
3. Remove the transmission cover by unscrewing the two knobs, and removing two truss machine screws.
4. Roll the belt over the top of the transmission pulley. Remove belt from the variable speed pulley.
5. Reassemble the new belt, following instructions in reverse order.

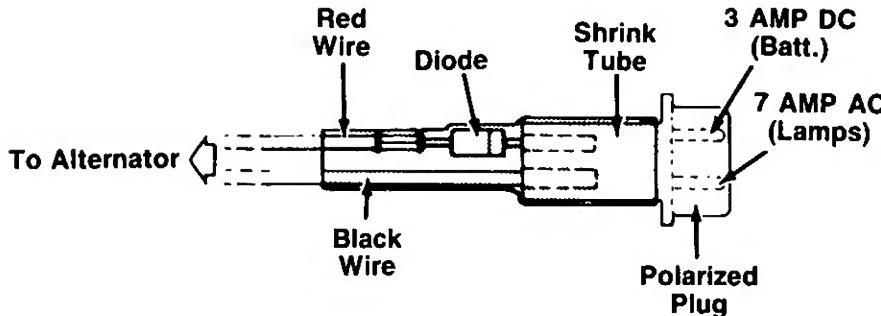
OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, prepare for storage as follows.

1. Clean the engine and the entire unit thoroughly.
2. Lubricate all lubrication points. Wipe the entire machine with an oiled rag to protect the surfaces.
3. Refer to the engine manual for correct engine storage instructions. The engine must be completely drained of fuel to prevent gum deposits from forming on essential carburetor parts, fuel lines and fuel tanks.
4. Refer to battery storage instructions on page 16.
5. Store unit in a clean, dry area.

NOTE: When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially any chains, springs, bearings and cables.

TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
Engine will not crank	Battery installed incorrectly	The battery must be installed with the negative terminal, identified at the terminal post by (Neg, N or -), grounded. The positive terminal (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.
	Blown fuse or circuit breaker	Replace fuse with 7½ amp. fuse ¼ x 1¼" lg. Circuit breaker will reset itself when it cools off. Fuses or circuit breakers seldom open or fail without a reason. The problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrician's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.
	Battery is dead or weak	<p>Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should be 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery failing must be determined. (1) Defective battery. Battery will not accept or hold a full charge. (2) Short circuit. Check for grounded wire. (3) Charging system not working.</p> <p>The charging system is an alternator located under the flywheel. It is unregulated and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before the wire harness plug on the engine side.</p> 
Mechanical failure (Wires and switches)		<p>The diode changes A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not, the alternator (stator) or lead wire is bad and should be replaced.</p>
Engine cranks but will not start	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke for starting.
	No spark to spark plug	<p>Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer.</p> <p>Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.</p>

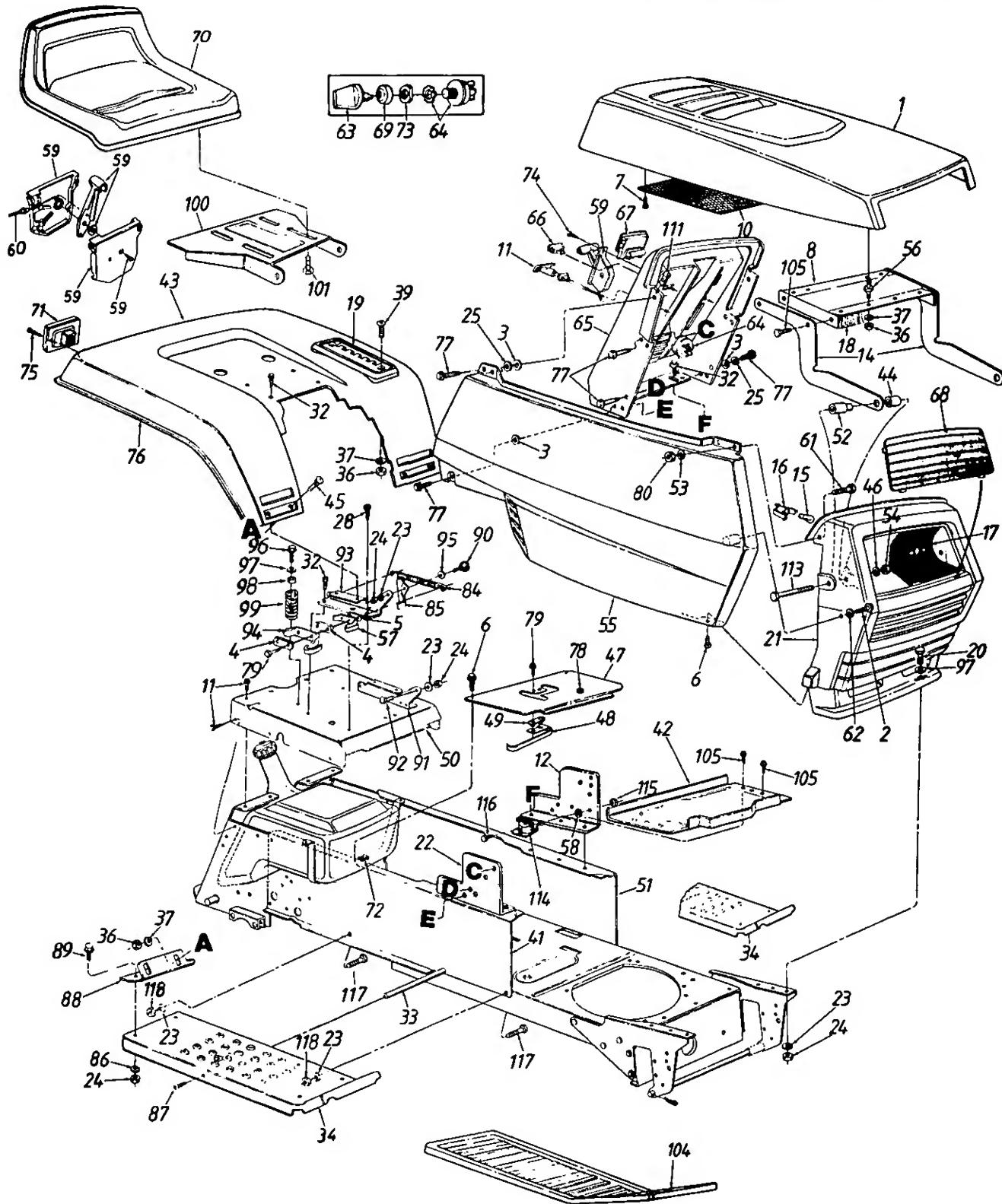
TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel line or in-line fuel filter plugged. Remove and clean fuel line. Replace filter if necessary.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not seated or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	Stop engine immediately. Check all pulleys, blade adapters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	Stop engine immediately. Replace damaged blade. Only use original equipment blades.
Mower will not discharge grass or leaves uncut strips	Engine speed low Transmission selection Blades short or dull	Throttle must be set between 3/4 and full throttle. Use lower transmission speed. The slower your ground speed, the better the quality of cut. Sharpen or replace blades (uncut strip problem only).

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NOTE

**Specifications subject to change
without notice or obligation.**



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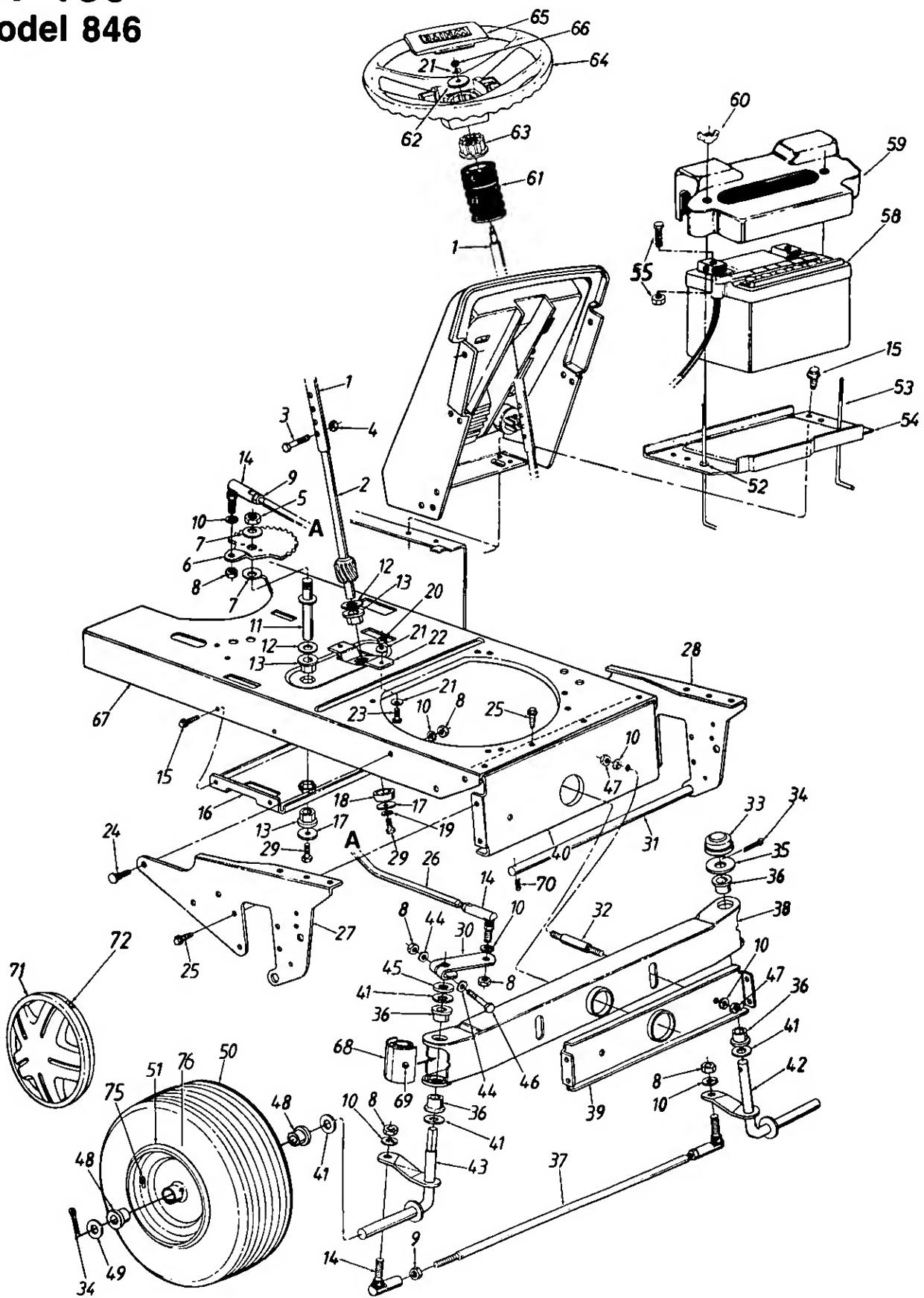
PARTS LIST FOR MODEL GT-180 (846) GARDEN TRACTOR

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	731-1036	629	Hood	60	746-0634		Throttle Control Wire 35" Lg.
2	710-0896		Hex Wash. B-Tap Scr. 1/4 x .62" Lg.	61	710-0258		Hex Bolt 1/4-20 x .62" Lg.*
3	726-0233		Bolt Retainer 1/4" I.D.	62	736-0173		Fl-Wash. .281" I.D. x .73" O.D.
4	726-0279		Insulator Plate	63	725-1341B		Ignition Key
5	726-0278		Insulator Boss Plate	64	725-0267		Ignition Switch
6	710-0351		Truss Mach. B-Tap Scr. #10 x .5" Lg.	65	731-0957		Dash Panel
7	710-0200		Hex Wash Hd. AB-Tap Scr. #8 x .5" Lg.	66	725-0634		Light Switch
8	16903		Hood Plate	67	725-0925		Ammeter
10	723-0416		Screen	68	731-1038		Lens
11	746-0614A		Choke Control	69	725-1347		Ignition Switch Cap
12	17294		Dash Support Brkt.—L.H.	70	757-0351		Seat Ass'y.
14	16902		Hood Hinge	71	725-3018		Taillight Ass'y.
15	725-0963		Lamp	72	726-0139		Speed Nut #10Z
16	725-1058A		Twist Lock—Lamp Socket	73	725-1346		Ignition Switch Nut
17	777-8516		Reflector—Headlight	74	710-0779A		Truss Mach. AB-Tap Scr. #10 x .5" Lg.
18	722-0199		Foam Seal	75	710-0936		Truss Hd. AB-Tap Scr. #6 x .62" Lg.
19	731-1069		Speed Control Index Brkt.	76	731-0511		Trim Strip—81"
20	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	77	710-0642		Hex Wash. Hd. Tap Scr. 1/4 x .75" Lg.
21	731-1037	629	Grille	78	731-0405		Snap Bushing
22	17293		Dash Support Bracket—R.H.	79	710-0227		Hex Wash. Hd. AB-Tap Scr. #8 x .50" Lg.
23	736-0119		L-Wash. 5/16" I.D.*	80	712-0291		Hex L-Nut 1/4-20 Thd.
24	712-0267		Hex Nut 5/16-18 Thd.*	84	732-0581		Ext. Spring 5.31" Lg.
25	736-0176		Fl-Wash. 1/4" I.D. x .93" O.D.	85	17239A		Seat Lift Brkt.
32	710-0726		Hex Wash. Hd. AB-Tap Scr. 5/16 x .75" Lg.	86	736-0242		Bell-Wash. .345" I.D. x .88" O.D.
33	738-0435		Running Board Rod	87	710-1012		Rib Neck Bolt 5/16-18 x .75"
34	16922		Running Board—R.H.	88	17406		Fender Bracket—R.H.
16921			Running Board—L.H.	89	17407		Fender Bracket—L.H.
36	712-0287		Hex Nut 1/4-20 Thd.*	90	710-0376		Hex Bolt 5/16-18 x 1.0" Lg.
37	736-0329		L-Wash. 1/4" I.D.*	91	738-0296		Shld. Bolt .437" Dia. x .268"
39	710-0946		Truss Mach. Scr. 1/4-20 x .62"	92	17701		Seat Pivot Brkt. Support—L.H.
41	17360		R.H. Side Frame	93	738-0155		Shld. Bolt .437" Dia. x .162"
42	17635		Support Brkt.	94	725-1303		Seat Pivot Brkt. Support—R.H.
43	17330	629	Rear Fender	95	736-0141		Spring Switch
44	750-0755		Spacer .33" I.D. x .625" O.D.	96	710-0602		Spr.-Wash. .445" I.D.
45	710-0167		Carriage Bolt 1/4-20 x .50" Lg.*	97	736-0159		Hex Wash. Hd. Tap Scr. 5/16-18 x 1" Lg.
46	736-0278		Fl-Wash. .328" I.D. x .68" O.D.	98	722-0160		Fl-Wash. .344" I.D.
47	17401		Transmission Panel	99	732-0588		Bushing
48	725-0759		Reverse Safety Switch	100	15607D		Compression Spring
49	726-0222	N	Insulator Nut Plate	101	710-0623		Seat Pivot Bracket
50	16848B	N	Seat Plate	104	731-1051		Hex Tap Scr. 3/8-16 x .75"
51	17361A	N	L.H. Side Frame	105	710-0599		Foot Pad
52	750-0754		Shld. Spacer .33" I.D.	111	712-0185		Hex Tap Scr. 1/4-20 x .5" Lg.
53	736-0142		Fl-Wash. .281" I.D. x .5" O.D.	113	710-0176		Speed Nut 1/4-20 Thd.
54	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	114	725-1426		Hex Bolt 5/16-18 x 2.75"
55	17448	629	Side Cover—R.H.	115	712-0271		Solenoid
17447			Side Cover—L.H. (Not Shown)	116	710-0289		Hex Sems Nut 1/4-20 Thd.
56	710-1034		Double Ended Stud 1/4-20 Thd.	117	710-1012		Hex Bolt 1/4-20 x .5" Lg.*
57	725-1439		Safety Switch (Seat)	118	712-0123		Rib Neck Bolt 5/16-24 x .75" Lg.
58	736-0222		Ext. L-Wash. 1/4" I.D.				Hex Nut 5/16-24 Thd.
59	831-0823A		Throttle Control Box Ass'y.				

*For faster service obtain standard nuts, bolts and washers locally.
If these items cannot be obtained locally, order by part number and size as shown on parts list.

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GT-180

Model 846

PARTS LIST FOR MODEL GT-180 (846) GARDEN TRACTOR

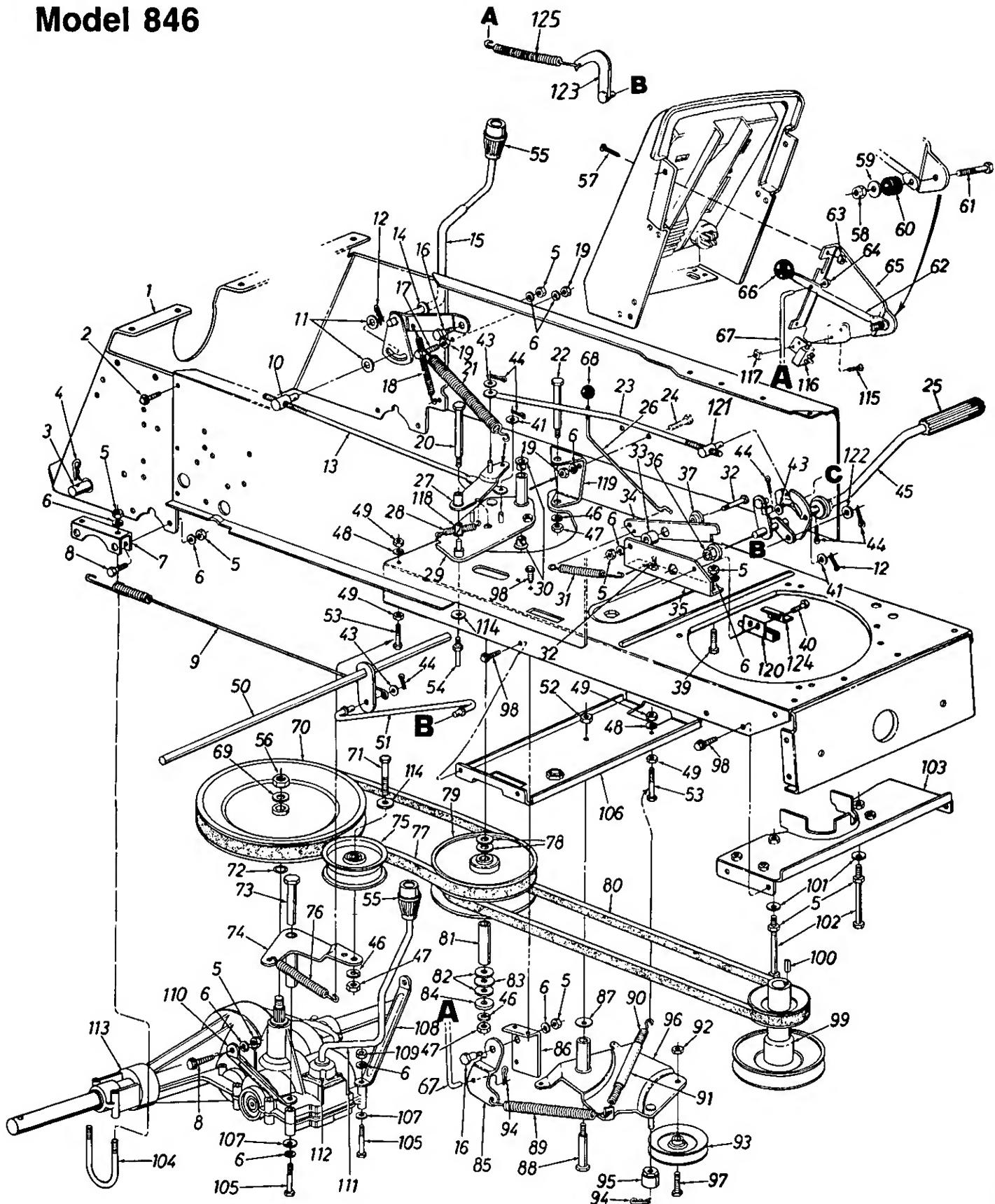
REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	16512		Steering Column Ass'y.	37	747-0721		Tie Rod 20.25" Lg.
2	738-0763		Lower Steering Shaft	38	16843		Pivot Bar Assy.
3	710-0958		Hex Bolt 1/4-20 x 1.31" Lg.	39	16889		Pivot Bar Support Brkt.—Front
4	712-0324		Hex L-Nut 1/4-20 Thd.	40	16890		Pivot Bar Support Brkt.—Rear
5	712-0337		Hex Nut 5/8-18 Thd.*	41	736-0188		Fl-Wash. .76" I.D. x 1.49" O.D.
6	717-0943A		Steering Gear Segment	42	738-0783		Front Axle Ass'y.—L.H.
7	736-0317		Bell-Wash. 5/8" I.D. x 1.25" O.D.	43	738-0784		Front Axle Ass'y.—R.H.
8	712-0241		Hex Nut 3/8-24 Thd.	44	736-0286		Bowed Washer
9	712-0711		Hex Jam Nut 3/8-24 Thd.	45	748-0160		Spacer .755" I.D. x 1.25" O.D.
10	736-0169		L-Wash. 3/8" I.D.*	46	710-0331		Hex Bolt 3/8-24 x 2.25" Lg.
11	738-0768		Steering Gear Segment Shaft	47	712-0798		Hex Nut 3/8-16 Thd.*
12	736-0187		Fl-Wash. .64" I.D. x 1.24" O.D.	48	748-3007A		Bronze Flange Brg.
13	748-0227		Hex Flange Brg. .63" I.D.	49	736-0316		Fl-Wash. .71" I.D. x 1.5" O.D.
14	723-3018		Ball Joint Ass'y.	50	734-1677		Wheel Ass'y. Comp.**
15	710-0599		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.	51	734-1501A		Tire Only**
16	16888		Deck Idler Support Brkt.	52	726-0271		Rim Only
17	736-0343		Fl-Wash. .33" I.D. x 1.25" O.D.	53	711-0222		Push Nut
18	750-0532		Spacer .985" I.D. x 1.25" O.D.	54	17635		Battery Hold Down Rod
19	736-0119		L-Wash. 5/16" I.D.*	55	—		Battery Plate
20	712-0123		Hex Nut 5/16-24 Thd.*	56	736-0329		Comes w/Battery (Replace w/Bolt 1/4-20 x 1/2" Lg. and nut)
21	736-0242		Bell-Wash. .345" I.D. x .88" O.D.	58	725-1430		L-Wash. 1/4" I.D.*
22	16894		Bearing Retainer Brkt.	59	731-1132		Battery (275 Cold Crank Amps)
23	710-0157		Hex Bolt 5/16-24 x .75" Lg.	60	712-0113		Battery Cover
24	710-0793		Ribbed Neck Bolt 3/8-24 x .8" Lg.	61	731-0954		Wing Nut Plastic 1/4-20 Thd.
25	710-0604		Hex Wash. TT-Tap Scr. 5/16-18 x .62" Lg.	62	736-0418		Steering Bellow
26	747-0579		Steering Drag Link	63	717-0935		Flat Washer
27	16896		Pivot Bar Side Plate—R.H.	64	731-0971		Steering Wheel Adapter
28	16897		Pivot Bar Side Plate—L.H.	65	731-1039		Steering Wheel
29	710-0538		Hex Bolt 5/16-18 x .62" Lg.	66	712-0237		Steering Wheel Cap
30	16918		Steering Arm	67	17359A		Hex L-Nut 5/16-24 Thd.
31	738-0777		Deck Connecting Rod	68	731-1049		Lower Frame
32	738-0775		Pivot Bar Shld. Bolt 3/8-16 x 5/8" Lg.	69	737-0146		Pivot Bar End Cap
33	731-0484A		Cap	70	714-0149B		Grease Fitting
34	714-0121		Cotter Pin 5/32" Dia.	71	734-1504		Internal Cotter Pin
35	736-0316		Flat Washer	72	727-0425A		Hub Cap
36	741-0523		Flange Brg. .757" I.D.	75	734-0255		Spring Clip
				76	737-0280	N	Air Valve
						N	Grease Fitting

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

**NOTE: If brand of tire is important, order by part number and description (description is printed on the sidewall of tire) [i.e. Armstrong Super Turf, Goodyear Softrac, Carlisle Turf Saver, etc.].

Part No.	Description
777-6549	Plastic Logo on Hood Side Labels
777-8294	Plastic Logo—Grille
777-8213	GT-180 Side Panel Labels
777-8317	Cruisematic GT Medallion
777-8214	White Label—Fender
777-4777	Reflective Label—Seat Back

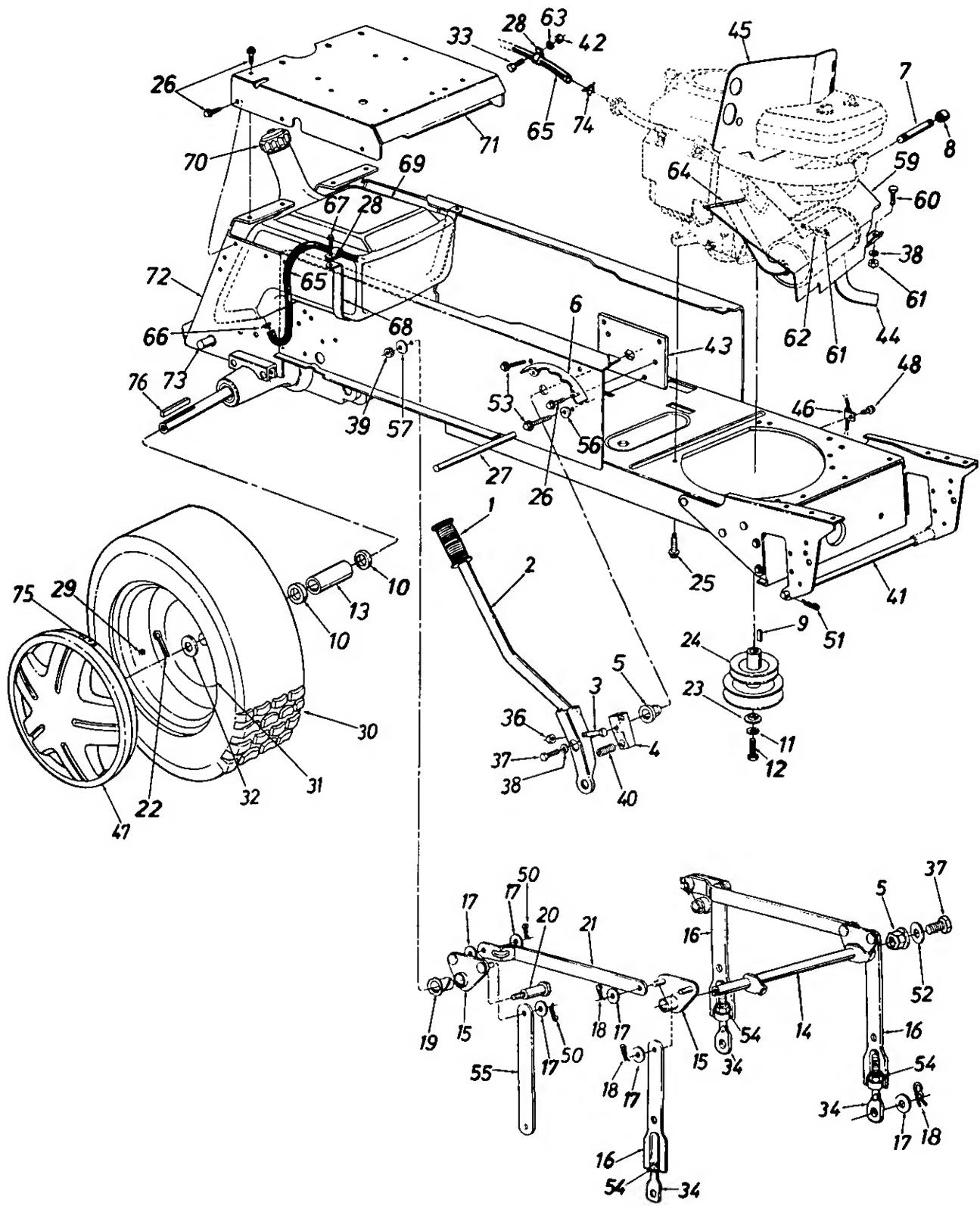
GT-180
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PARTS LIST FOR MODEL GT-180 (846) GARDEN TRACTOR

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	17343		Hitch Plate	63	712-0271		Hex Sems Nut 1/4-20 Thd.
2	710-0726		Hex AB-Tap Scr. 5/16" x .75"	64	726-0106		Push Nut 1/4" O.D. Rod
3	738-0482		Hitch Rod	65	13950A		Deck Clutch Control Brkt.
4	714-0147		Hitch Pin Clip	66	720-0165		Knob—Blade Clutch
5	712-0267		Hex Nut 5/16-18 Thd.*	67	747-0708		Deck Control Rod
6	736-0119		L-Wash. 5/16" I.D.*	68	720-0166		Ball Knob Brake
7	17340		Transaxle Bracket	69	736-0427		Bell-Wash. 9/16" I.D. x 1.25"
8	710-3008		Hex Bolt 5/16-18 x .75" Lg. (Gr. 5)	70	756-0534		V-Pulley 9 1/4" O.D.
9	732-0601		Brake Extension Spring	71	710-0539		Hex Bolt 3/8-24 x 1.75" Lg.
10	711-0723A		Adjustment Ferrule 3/8-24 Thd.	72	732-0614		Wire Ring
11	736-0267		Fl-Wash. .385" I.D. x .87"	73	738-0769		Shld. Bolt 5/16-24 Thd.
12	714-0104		Internal Cotter Pin	74	16904		Idler Brkt. Ass'y.
13	747-0729		Speed Control Link (Rear)	75	756-0542		Flat Idler 3.5" O.D.
14	736-0192		Fl-Wash. .531" I.D. x .94"	76	732-0604		Extension Spring 6.12" Lg.
15	16906		Speed Selector Lever Ass'y.	77	754-0362		V-Belt
16	738-0155		Shld. Bolt .437" Dia. x .162"	78	736-0414		Teflon Washer 1.20" O.D.
17	710-0672		Hex Bolt 5/16-24 x 1.25" Lg.	79	717-0945		Variable Speed Pulley 6" Dia.
18	732-0429A		Extension Spring 3.9" Lg.	80	754-0358		V-Belt
19	712-3057		Hex Nut 5/16-24 Thd. (Gr. 5)	81	738-0778		Pivot Bushing
20	710-0620		Hex Bolt 3/8-24 x 4.5" Lg.	82	736-0355		Fl-Wash. .56" I.D. x 1.0" O.D.
21	732-0603		Extension Spring 11" Lg.	83	741-0805		Thrust Brg. .56" I.D. x 1.25"
22	738-0779		Shld. Bolt .625" Dia. x 3.5" Lg.	84	17485		Retainer Cup
23	747-0726		Speed Control Link (Front)	85	13887		Deck Control Pivot Brkt.
24	710-0157		Hex Bolt 5/16-24 x .75" Lg.	86	13833		Parking Brake Mtg. Brkt.
25	735-0196		Foot Pad	87	736-0105		Bell-Wash. .38" I.D. x .88" O.D.
26	747-0722		Parking Brake Link	88	738-0129		Shld. Bolt .498" Dia. x 2.05"
27	17914	N	Var. Speed Torque Brkt. Ass'y.	89	732-0478		Extension Spring 6.12" Lg.
28	732-0568		Extension Spring 2.59" Lg.	90	732-0308		Extension Spring 6.37" Lg.
29	17908		Pulley Plate Ass'y.	91	731-0483		Convoluted Conduit 4" Lg.
30	741-0591		Flanged Brg. .63" I.D.	92	712-0214		Hex Cent. L-Nut 3/8-24 Thd.
31	732-0395		Extension Spring 2.51" Lg.	93	756-0293A		V-Belt Idler
32	710-0528		Hex Bolt 5/16-18 x 1.25" Lg.*	94	714-0104		Internal Cotter Pin
33	750-0214		Spacer .34" I.D. x .88"	95	748-0278		Spacer
34	16980		Brake Lockout Bracket	96	14076A		Idler Brkt. Deck Ass'y.
35	16924A	N	Clutch Ass'y. Mtg. Bracket	97	710-0459		Hex Bolt 3/8-24 x 1.5" Lg.
36	741-0225		Hex Flange Brg. .634" I.D.	98	710-0599		Hex TT-Tap Scr. 1/4-20 x .5"
37	748-0234		Shld. Spacer .5" Dia.	99	756-0531		Engine Pulley
38	736-0187		Fl-Wash. .64" I.D. x 1.24"	100	714-0118		Sq. Key 1/4 x 1.5" Lg.
39	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	101	736-0242		Bell-Wash. .345" I.D. x .88"
40	710-0651		Hex Tap Scr. #10-32 x 5/8" Lg.	102	710-0833		Hex Bolt 5/16-18 x 5.25" Lg.
41	736-0185		Fl-Wash. .406" I.D. x .75" O.D.	103	17357		Belt Keeper Brkt. Ass'y.
42	714-0115		Cotter Pin 1/8" Dia.	104	711-0829		U-Bolt
43	736-0275		Fl-Wash. .34" I.D. x .68" O.D.	105	710-0593		Hex Bolt 5/16-24 x 2.25" Lg.
44	714-0111		Cotter Pin 3/32" Dia.	106	16888		Deck Idler Support Brkt.
45	17910	N	Foot Pedal Ass'y.	107	736-0264		Fl-Wash. .344" I.D. x .62" O.D.
46	736-0169		L-Wash. 3/8" I.D.*	108	16979		Front Trans. Support Brkt.—L.H.
47	712-0241		Hex Nut 3/8-24 Thd.	109	712-0123		Hex Nut 5/16-24 Thd.*
48	736-0329		L-Wash. 1/4" I.D.*	110	16978		Front Trans. Support Brkt.—R.H.
49	712-0287		Hex Nut 1/4-20 Thd.*	111	717-0985		Shift Lever Ass'y. Complete
50	17349		Brake Link Bracket	112	710-1048		Socket Hd. Cap Scr. #10 x 24
51	747-0724		Front Brake Rod Link	113	717-1150		2-Speed Transmission Comp.
52	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	114	736-0258		Fl-Wash. 3/8" I.D. x 1.0" O.D.
53	710-0501		Hex Bolt 1/4-20 x 2.0" Lg.	115	710-0473		Truss Mach. Scr. #10-24 x .5"
54	711-0828		Belt Guard Pin	116	725-0465A		Safety Switch
55	720-0218		Shift Knob	117	712-0121		Hex Nut #10-24 Thd.
56	712-3035		Hex Jam Nut 9/16-18 Thd.	118	741-0419		Nyliner Flanged Brg.
57	710-0286		Truss Mach. Scr. 1/4-20 x .5" Lg.	119	17180		Variable Speed Support Brkt.
58	712-0324		Hex Ins. L-Nut 1/4-20 Thd.	120	725-3169A		Safety Switch (Clutch)
59	736-0173		Fl-Wash. .281" I.D. x .73" O.D.	121	711-0832		Adjustment Ferrule 3/8-24 Thd.
60	735-0126		Rubber Washer .33" I.D.	122	736-0204		Fl-Wash. .344" I.D. x .62" O.D.
61	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.	123	17912		Foot Pedal Brkt. Ass'y.
62	747-0513		Blade Clutch Lever	124	17962		Switch Plate
				125	732-0698		Ext. Spring 5.2" Lg.

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REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0233		Grip	37	710-0237		Hex Scr. 5/16-24 x .62" Lg.*
2	17282		Lift Handle Ass'y.	38	736-0119		L-Wash. 5/16" I.D.*
3	710-0442		Hex Bolt 5/16-18 x 1.5" Lg.*	39	712-0181		Hex Top L-Nut 3/8-16 Thd.
4	748-0274A		Lift Shaft Drive	40	732-0369		Compression Spring
5	741-0225		Plastic Hex Brdg. 5/8" I.D.	41	738-0777		Deck Connecting Rod
6	14231		Index Brkt. Deck Lift	42	712-0287		Hex Nut 1/4-20 Thd.*
7	737-0164		Pipe Nipple 3/8-18 Npt.	43	14170		Index Brkt. Reinforcement Plate
8	737-0143		Pipe Cap 3/8-18 Npt.	44	751-0474		Muffler
9	714-0118		Sq. Key 1/4" x 1/4" x 1.50" Lg.	45	17452		Heat Shield
10	736-0163		Fl-Wash. 1.03" I.D. x 1.62" O.D.	46	726-0273		Mounting Clamp
11	736-0171		L-Wash. 7/16" I.D.	47	734-1505		Hubcap
12	710-0757		Hex Scr. 7/16-20 x 1.50" Lg.	48	710-0599		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.
13	750-0762		Spacer 1.0" I.D. x 1.25" O.D.	50	714-0111		Cotter Pin .09 Dia. x 1.0" Lg.
14	13889		Lift Shaft Ass'y.	51	714-0149B		Int. Cotter Pin
15	13895		Lift Pivot Brkt. Ass'y.	52	736-0231		Flat Wash. .34" I.D. x 1.12" O.D. x .125"
16	17303		Adj. Deck Lift Link	53	710-0600		Hex Wash. Hd. AB-Tap Scr. 5/16-24 x .5" Lg.
17	736-0192		Fl-Wash. 1/2" I.D. x 1.00" O.D. x .090"	54	712-0206		Hex Nut 1/2-13 Thd.
18	714-0101		Hairpin Cotter	55	14399		Deck Link
19	741-0295		Nyliner 5/8" I.D. x .88" Lg.	56	736-0264		Fl-Wash. .344" I.D.
20	738-0445		Shld. Bolt 5/8" Dia. x .96" Lg. 3/8-16	57	736-0219		Bell-Wash. .4" I.D. x 1.13" O.D.
21	13790		Connecting Link	59	16934		Front Heat Shield
22	714-0142		Cotter Pin 3/16" Dia. x 1.5" Lg.	60	710-0118		Hex Bolt 5/16-18 x .75" Lg.*
23	736-0322		Flat Wash. .44" I.D. x 1.25" O.D. x .17"	61	712-0267		Hex Nut 5/16-18 Thd.*
24	756-0531		Two-Step Engine Pulley	62	736-0170		L-Wash. 5/16" I.D. (Special)
25	710-0502A		Hex Wash. Hd. Scr. 3/8-16 x 1.25" Lg.	63	736-0329		L-Wash. 1/4" I.D.*
26	710-0726		Hex Thd. Rolling Scr. 5/16-18 x .75" Lg.	64	731-0511		Trim Strip 10" Lg.
27	738-0435		Running Board Rod	65	751-0535-50		Fuel Line 50" Lg.
28	726-0272		Clamp	66	726-0205		Hose Clamp
29	734-0255		Air Valve	67	710-0776		Hex AB-Tap Scr. 1/4 x .62" Lg.
30	734-1005A		Rear Wheel Ass'y. Comp.**	68	17424		Fuel Tank Strap
	734-0322		Tire Only**	69	751-0528B	N	Gas Tank
31	734-1015		Rear Wheel Rim Only	70	751-0531B	N	Gas Gauge
32	736-0345		Flat Washer	71	16848B	N	Seat Plate
33	710-0258		Hex Bolt 1/4-20 x .62" Lg.	72	17343		Hitch Plate
34	711-0817		Eye Bolt Adj. Link 1/2-13 Thd.	73	738-0482		Hitch Rod
35	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	75	727-0425A		Spring Clip
				76	714-0120		Sq. Key 1/4" x 3" Lg.

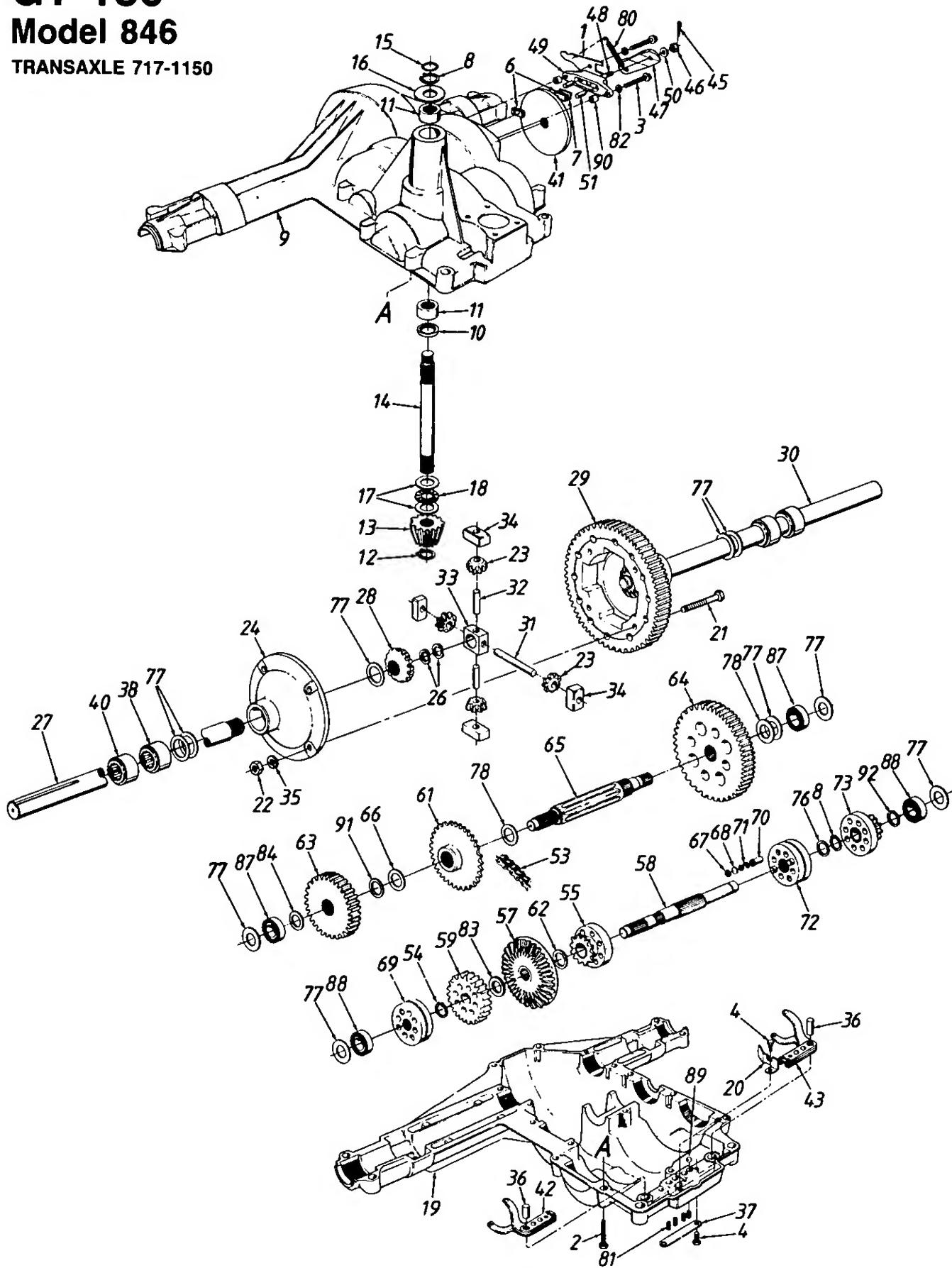
*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

**NOTE: If brand of tire is important, order by part number and description (description is printed on the sidewall of tire) [i.e. Armstrong Super Turf, Goodyear Softrac, Carlisle Turf Saver, etc.].

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TRANSAXLE 717-1150



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PARTS LIST FOR MODEL 717-1150 TRANSAXLE

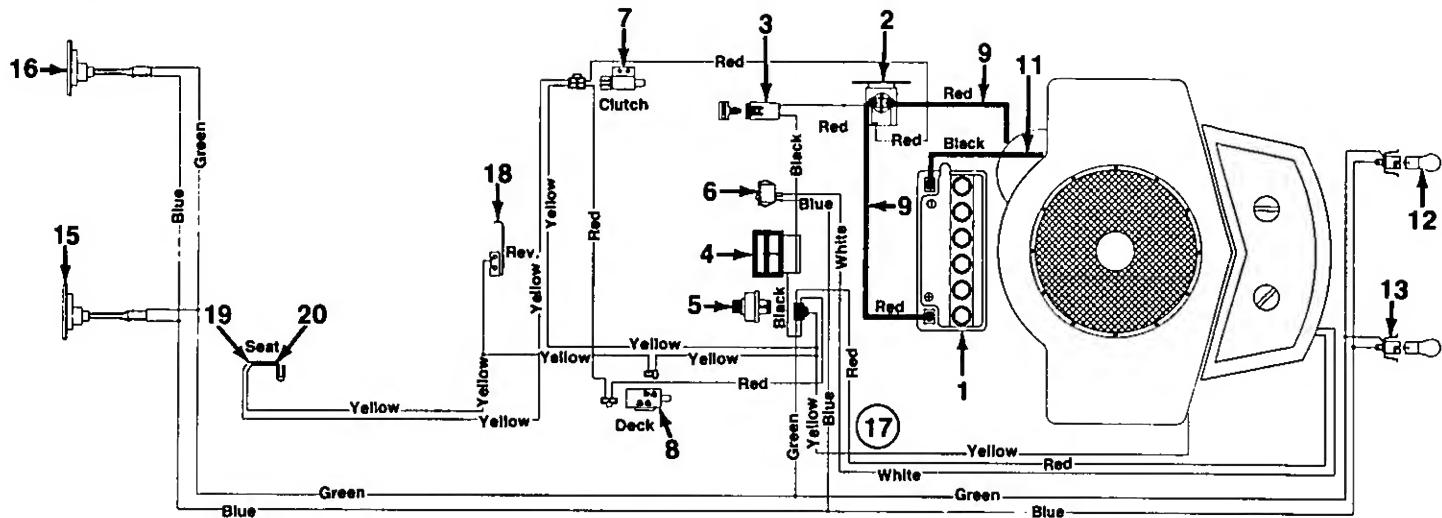
REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	17434		Brake Return Bracket	45	714-0507		Cotter Pin 3/32" Dia.
2	710-0809		Hex Bolt 1/4-20 x 1.25" Lg.	46	712-0335		Castle Nut 5/16-24 Thd.
3	710-0886		Hex Bolt 1/4-20 x 1.5" Lg. (Gr. 5)	47	717-1132		Brake Actuating Arm
4	710-1011		Tap Scr. 1/4-20 x .38" Lg.	48	717-0796		Sq. Hd. Bolt 5/16-24 Thd.
6	717-0678		Brake Puck	49	717-1179		Brake Yoke
7	717-0682		Puck Plate	50	736-0371		Fl-Wash. 11/32" I.D. x 7/8" O.D.
8	716-0171		Retainer Ring	51	741-0787		Brake Actuating Pin
9	717-1164		Upper Housing	53	713-0326		#420 Chain 1/2 Pitch x 28 Links
10	721-0253		Oil Seal	54	716-0149		Retainer Ring
11	741-0525		Needle Brg. 5/8" I.D. x 7/8" O.D.	55	717-1141		Reverse Sprocket Ass'y.
12	716-0114		Snap Ring	57	717-1157		Bevel Gear 47T
13	717-1133		Input Pinion 15T	58	717-1160		Drive Shaft
14	717-1134		Input Shaft	59	717-1174		Spur Gear Ass'y.
15	732-0614		Wire Ring	61	717-1182		Sprocket 22T
16	736-0335		Thrust Washer 5/8" I.D.	62	736-0421		Fl-Wash. .81" I.D. x 1.18" O.D.
17	736-0419		Thrust Washer	63	717-1155		Spur Gear 31T
18	741-0469		Thrust Bearing	64	717-1156		Spur Gear 45T
19	717-1161		Lower Housing	65	717-1158		Output Shaft 9T
20	717-1166		Shift Guide	66	717-1172		Spacer
21	710-0151		Hex Bolt 3/8-24 x 2.0" Lg.*	67	716-0170		Internal Retainer Ring
22	712-3054		Hex L-Nut 3/8-24 Thd. (Gr. 5)	68	717-1137		Plug .44" Dia.
23	717-1120		Differential Gear 10T	69	717-1167		Forward Shift Collar
24	717-1147		Differential Housing Cover Ass'y.	70	717-1175		Drive Pin
26	716-0172		Retainer Ring	71	732-0590		Drive Spring
27	717-1112		Axle R.H.	72	717-1168		Creeper Shift Collar
28	717-1119		Differential Gear 14T	73	717-1193		Creeper Collar Plate Ass'y.
29	717-1159		Differential Bull Gear 60T	76	736-0353		Fl-Wash. .65" I.D. x .97" O.D.
30	717-1111		Axle L.H.	77	**		Fl-Wash. (See Below)
31	717-1173		Cross Shaft	78	736-0424		Fl-Wash. 1.0" I.D. x 1.56" O.D.
32	717-1178		Cross Shaft—Special	80	732-0545		Ext. Spring 1.14" Lg.
33	717-1180		Differential Pinion Block	81	732-0598		Detent Spring
34	717-1190		Differential Thrust Block	82	736-0329		L-Wash. 1/4" I.D.*
35	736-0413		Spr. Wash. .39" I.D. x .62" O.D.	83	736-0349		Fl-Wash. 5/8" I.D. x 1.0" O.D.
36	717-1138		Shift Pin	84	736-0422		Fl-Wash. .68" x 1.12"
37	717-1139		Spring Plate	87	741-0124		Ball Brg. .669" I.D.
38	741-1143		Axle Bearing Ass'y.	88	741-0524		Ball Bearing
40	717-1144		Axle Bearing Ass'y.	89	741-0862		Ball Detent .25" Dia.
41	717-1177		Brake Disc	90	750-0555		Spacer .254" I.D. x .5" O.D.
42	717-1185		Shift Arm Ass'y.—R.H.	91	736-0333		Fl-Wash. .69" I.D. x 1.06" O.D.
43	717-1186		Shift Arm Ass'y.—L.H.	92	***		Fl-Wash. (See Below)

** Ref. No. 77 736-0423 Fl-Wash. 1" I.D. x 1.56" O.D. x .010" Thk.
 736-0431 Fl-Wash. 1" I.D. x 1.56" O.D. x .015" Thk.
 736-0424 Fl-Wash. 1" I.D. x 1.56" O.D. x .020" Thk.
 736-0420 Fl-Wash. 1" I.D. x 1.56" O.D. x .040" Thk.

*** Ref. No. 92 736-0349 Fl-Wash. 5/8" I.D. x 1.0" O.D. x .020" Thk.
 736-0336 Fl-Wash. 5/8" I.D. x 1.0" O.D. x .030" Thk.
 736-0337 Fl-Wash. 5/8" I.D. x 1.0" O.D. x .040" Thk.

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PARTS LIST FOR ELECTRICAL SYSTEM

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	725-1430		Battery (275 Cold Crank Amps)	12	725-0963		Lamp
2	725-1426		Solenoid	13	725-1058A		Socket
3	725-1625	N	Fuse 7.5 AMP	14	725-1380		Taillight Harness
4	725-0925		Ammeter	15	725-3018		Taillight Ass'y.
5	725-0267		Ignition Switch	16	725-3020		Taillight Bulb
6	725-0634		Light Switch	17	629-0035	N	Wire Harness
7	725-3169A	N	Safety Switch (Clutch)	18	725-0759		Spring Switch
8	725-0465A		Safety Switch (PTO)	19	725-1303		Safety Switch (Seat)
9	725-0561		Electric Wire 14" Lg.	20	725-1439		Safety Switch (Seat)
11	725-0996		Ground Wire 7.5" Lg.	21	725-1539		Ground Wire

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White Shows the Way!



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